

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	27073	oligosaccharide\$1 or lacto-n-neotetraose or LNT or poly lactosamine	US-PGPUB; USPAT	ADJ	OFF	2008/01/02 13:27
L2	5231	1 near8 (synthes\$8 or produc\$8)	US-PGPUB; USPAT	ADJ	OFF	2008/01/02 13:27
L3	942	2 same (coli or bacter\$ or microb\$10 or microorganism\$)	US-PGPUB; USPAT	ADJ	OFF	2008/01/02 13:28
L4	51	3 same vivo	US-PGPUB; USPAT	ADJ	OFF	2008/01/02 13:28
L5	3641	1 near3 (synthes\$8 or produc\$8)	US-PGPUB; USPAT	ADJ	OFF	2008/01/02 13:37
L6	230	5 near5 (coli or bacter\$ or microb\$10 or microorganism\$)	US-PGPUB; USPAT	ADJ	OFF	2008/01/02 13:37
L7	62	6 and (glycosyltransferase\$1 or glycosyl transferase\$1)	US-PGPUB; USPAT	ADJ	OFF	2008/01/02 13:38
L8	4295	lactose permease or lacY or lac adj y	US-PGPUB; USPAT	ADJ	OFF	2008/01/02 13:51
L9	31	8 near5 (overexpress\$ or recombinant\$ or express\$)	US-PGPUB; USPAT	ADJ	OFF	2008/01/02 13:52

7/7/00

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 14:46:28 ON 02 JAN 2008

=> fil .bec

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS, ESBIODBASE, BIOTECHNO, WPIDS' ENTERED AT 14:46:43 ON 02 JAN 2008  
ALL COPYRIGHTS AND RESTRICTIONS APPLY. SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

=> s oligosaccharide# or lacto n neotetraose or LNnT or polylactosamine

FILE 'MEDLINE'

28000 OLIGOSACCHARIDE#

886 LACTO

881674 N

124 NEOTETRAOSE

120 LACTO N NEOTETRAOSE

(LACTO (W) N (W) NEOTETRAOSE)

20 LNNT

197 POLYLACTOSAMINE

L1 28120 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMINE

FILE 'SCISEARCH'

31544 OLIGOSACCHARIDE#

763 LACTO

1434237 N

128 NEOTETRAOSE

121 LACTO N NEOTETRAOSE

(LACTO (W) N (W) NEOTETRAOSE)

22 LNNT

204 POLYLACTOSAMINE

L2 31697 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMINE

FILE 'LIFESCI'

7227 OLIGOSACCHARIDE#

218 "LACTO"

267792 "N"

54 "NEOTETRAOSE"

54 LACTO N NEOTETRAOSE

("LACTO" (W) "N" (W) "NEOTETRAOSE")

7 LNNT

45 POLYLACTOSAMINE

L3 7285 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMINE

FILE 'BIOTECHDS'

3770 OLIGOSACCHARIDE#

69 LACTO

53640 N

14 NEOTETRAOSE

13 LACTO N NEOTETRAOSE

(LACTO (W) N (W) NEOTETRAOSE)

5 LNNT

7 POLYLACTOSAMINE

L4 3780 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMINE

FILE 'BIOSIS'

27041 OLIGOSACCHARIDE#  
 3461 LACTO  
 1143462 N  
 123 NEOTETRAOSE  
 120 LACTO N NEOTETRAOSE  
 (LACTO (W) N (W) NEOTETRAOSE)  
 21 LNNT  
 209 POLYLACTOSAMINE  
 L5 27241 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI  
 NE

FILE 'EMBASE'

20424 OLIGOSACCHARIDE#  
 788 "LACTO"  
 867093 "N"  
 119 "NEOTETRAOSE"  
 112 LACTO N NEOTETRAOSE  
 ("LACTO" (W) "N" (W) "NEOTETRAOSE")  
 18 LNNT  
 172 POLYLACTOSAMINE  
 L6 20574 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI  
 NE

FILE 'HCAPLUS'

57154 OLIGOSACCHARIDE#  
 1516 LACTO  
 3122229 N  
 212 NEOTETRAOSE  
 206 LACTO N NEOTETRAOSE  
 (LACTO (W) N (W) NEOTETRAOSE)  
 43 LNNT  
 230 POLYLACTOSAMINE  
 L7 57342 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI  
 NE

FILE 'NTIS'

173 OLIGOSACCHARIDE#  
 5 LACTO  
 71193 N  
 1 NEOTETRAOSE  
 1 LACTO N NEOTETRAOSE  
 (LACTO (W) N (W) NEOTETRAOSE)  
 0 LNNT  
 1 POLYLACTOSAMINE  
 L8 175 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI  
 NE

FILE 'ESBIOBASE'

9707 OLIGOSACCHARIDE#  
 282 LACTO  
 399359 N  
 78 NEOTETRAOSE  
 75 LACTO N NEOTETRAOSE  
 (LACTO (W) N (W) NEOTETRAOSE)  
 15 LNNT  
 109 POLYLACTOSAMINE  
 L9 9814 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI  
 NE

FILE 'BIOTECHNO'

9517 OLIGOSACCHARIDE#  
 275 LACTO  
 184936 N  
 53 NEOTETRAOSE  
 52 LACTO N NEOTETRAOSE

```

                (LACTO (W) N (W) NEOTETRAOSE)
            8 LNNT
            113 POLYLACTOSAMINE
L10      9603 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
                NE

FILE 'WPIDS'
            8215 OLIGOSACCHARIDE#
            536 LACTO
            828130 N
            26 NEOTETRAOSE
            23 LACTO N NEOTETRAOSE
                (LACTO (W) N (W) NEOTETRAOSE)
            16 LNNT
            22 POLYLACTOSAMINE
L11      8231 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
                NE

TOTAL FOR ALL FILES
L12      203862 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
                NE

=> s l12(5a) (synthes? or produc?)
FILE 'MEDLINE'
            561448 SYNTHES?
            1447591 PRODUC?
L13      2176 L1 (5A) (SYNTHES? OR PRODUC?)

FILE 'SCISEARCH'
            1015787 SYNTHES?
            2073859 PRODUC?
L14      3826 L2 (5A) (SYNTHES? OR PRODUC?)

FILE 'LIFESCI'
            158565 SYNTHES?
            584996 PRODUC?
L15      926 L3 (5A) (SYNTHES? OR PRODUC?)

FILE 'BIOTECHDS'
            37774 SYNTHES?
            244863 PRODUC?
L16      1337 L4 (5A) (SYNTHES? OR PRODUC?)

FILE 'BIOSIS'
            738529 SYNTHES?
            2132937 PRODUC?
L17      3404 L5 (5A) (SYNTHES? OR PRODUC?)

FILE 'EMBASE'
            676804 SYNTHES?
            1369397 PRODUC?
L18      2043 L6 (5A) (SYNTHES? OR PRODUC?)

FILE 'HCAPLUS'
            1682639 SYNTHES?
            4656509 PRODUC?
            1052585 PRODN
            5162078 PRODUC?
                (PRODUC? OR PRODN)
L19      8292 L7 (5A) (SYNTHES? OR PRODUC?)

FILE 'NTIS'
            43799 SYNTHES?
            381531 PRODUC?
L20      24 L8 (5A) (SYNTHES? OR PRODUC?)

```

```

FILE 'ESBIOBASE'
    228270 SYNTHES?
    694919 PRODUC?
L21      1300 L9 (5A) (SYNTHES? OR PRODUC?)

FILE 'BIOTECHNO'
    170699 SYNTHES?
    394590 PRODUC?
L22      1016 L10 (5A) (SYNTHES? OR PRODUC?)

FILE 'WPIDS'
    160054 SYNTHES?
    2629547 PRODUC?
L23      1004 L11 (5A) (SYNTHES? OR PRODUC?)

TOTAL FOR ALL FILES
L24      25348 L12 (5A) (SYNTHES? OR PRODUC?)

=> s l24(5a) (coli or bacter? or microb? or microorganism?)
FILE 'MEDLINE'
    268340 COLI
    818706 BACTER?
    585388 MICROB?
    39265 MICROORGANISM?
L25      62 L13 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'SCISEARCH'
    255444 COLI
    424583 BACTER?
    162786 MICROB?
    52269 MICROORGANISM?
L26      90 L14 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'LIFESCI'
    108870 COLI
    221191 BACTER?
    64340 MICROB?
    44294 MICROORGANISM?
L27      43 L15 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'BIOTECHDS'
    50436 COLI
    136410 BACTER?
    23141 MICROB?
    29040 MICROORGANISM?
L28      90 L16 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'BIOSIS'
    321938 COLI
    1641044 BACTER?
    505107 MICROB?
    3216975 MICROORGANISM?
L29      94 L17 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'EMBASE'
    192981 COLI
    547561 BACTER?
    125446 MICROB?
    133095 MICROORGANISM?
L30      56 L18 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'HCAPLUS'
    293508 COLI
    653912 BACTER?

```

486789 MICROB?  
 170619 MICROORGANISM?  
 L31 238 L19 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)  
 FILE 'NTIS'  
 2942 COLI  
 19329 BACTER?  
 13166 MICROB?  
 9347 MICROORGANISM?  
 L32 1 L20 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)  
 FILE 'ESBIOBASE'  
 80945 COLI  
 238768 BACTER?  
 314827 MICROB?  
 47799 MICROORGANISM?  
 L33 54 L21 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)  
 FILE 'BIOTECHNO'  
 94549 COLI  
 191870 BACTER?  
 38419 MICROB?  
 18193 MICROORGANISM?  
 L34 36 L22 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)  
 FILE 'WPIDS'  
 32163 COLI  
 129680 BACTER?  
 58598 MICROB?  
 57633 MICROORGANISM?  
 L35 65 L23 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)  
 TOTAL FOR ALL FILES  
 L36 829 L24 (5A) (COLI OR BACTER? OR MICROB? OR MICROORGANISM?)  
 => s l36 not 2001-2008/py  
 FILE 'MEDLINE'  
 4221099 2001-2008/PY  
 (20010000-20089999/PY)  
 L37 37 L25 NOT 2001-2008/PY  
 FILE 'SCISEARCH'  
 7790095 2001-2008/PY  
 (20010000-20089999/PY)  
 L38 47 L26 NOT 2001-2008/PY  
 FILE 'LIFESCI'  
 895221 2001-2008/PY  
 L39 25 L27 NOT 2001-2008/PY  
 FILE 'BIOTECHDS'  
 174757 2001-2008/PY  
 L40 46 L28 NOT 2001-2008/PY  
 FILE 'BIOSIS'  
 3897957 2001-2008/PY  
 L41 50 L29 NOT 2001-2008/PY  
 FILE 'EMBASE'  
 3713811 2001-2008/PY  
 L42 35 L30 NOT 2001-2008/PY  
 FILE 'HCAPLUS'  
 8090843 2001-2008/PY  
 L43 116 L31 NOT 2001-2008/PY

FILE 'NTIS'  
121734 2001-2008/PY  
L44 1 L32 NOT 2001-2008/PY

FILE 'ESBIOBASE'  
2196803 2001-2008/PY  
L45 25 L33 NOT 2001-2008/PY

FILE 'BIOTECHNO'  
368875 2001-2008/PY  
L46 28 L34 NOT 2001-2008/PY

FILE 'WPIDS'  
6465009 2001-2008/PY  
L47 32 L35 NOT 2001-2008/PY

TOTAL FOR ALL FILES  
L48 442 L36 NOT 2001-2008/PY

=> dup rem l48  
PROCESSING COMPLETED FOR L48  
L49 204 DUP REM L48 (238 DUPLICATES REMOVED)

=> d tot

L49 ANSWER 1 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI A new chitosanase producing microbe, Burkholderia gladioli for  
manufacturing chitosan oligosaccharide;  
Production of chitosan oligosaccharide by Burkholderia gladioli sp.  
CHB101

AN 2000-06955 BIOTECHDS  
PI JP 2000041664 15 Feb 2000

L49 ANSWER 2 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Role of oligosaccharides in microbial glycoproteins and synthetic methods  
of neoglycoproteins  
SO Nippon Nogeï Kagaku Kaishi (2000), 74(11), 1237-1246  
CODEN: NNKKAA; ISSN: 0002-1407  
AU Takegawa, Kaoru  
AN 2000:810811 HCAPLUS  
DN 133:331223

L49 ANSWER 3 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Production of heterologous oligosaccharides by  
recombinant bacteria (recombinant oligosaccharides)  
SO Carbohydrates in Chemistry and Biology (2000), Volume 2, 845-860.  
Editor(s): Ernst, Beat; Hart, Gerald W.; Sinay, Pierre. Publisher:  
Wiley-VCH Verlag GmbH, Weinheim, Germany.  
CODEN: 69AMJE  
AU Geremia, Roberto A.; Samain, Eric  
AN 2000:717510 HCAPLUS  
DN 134:85146

L49 ANSWER 4 OF 204 MEDLINE on STN DUPLICATE 2  
TI Large-scale production of oligosaccharides using  
engineered bacteria.  
SO Current opinion in structural biology, (2000 Oct) Vol. 10, No. 5, pp.  
536-41. Ref: 50  
Journal code: 9107784. ISSN: 0959-440X.  
AU Endo T; Koizumi S  
AN 2000502273 MEDLINE

L49 ANSWER 5 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI A novel approach to the recovery of biologically active oligosaccharides

from milk using a combination of enzymatic treatment and nanofiltration;  
combined lipase and nanofiltration of human defatted milk for  
production of oligosaccharide with anti-Escherichia  
coli activity

SO Biotechnol.Bioeng.; (2000) 69, 4, 461-67  
CODEN: BIBIAU ISSN: 0006-3592  
AU Sarney D B; Hale C; Frankel G; \*Vulfson E N  
AN 2000-10620 BIOTECHDS

L49 ANSWER 6 OF 204 MEDLINE on STN DUPLICATE 3  
TI Microbial production of oligosaccharides: a  
review.  
SO Advances in applied microbiology, (2000) Vol. 47, pp. 299-343. Ref: 115  
Journal code: 0370413. ISSN: 0065-2164.  
AU Prapulla S G; Subhaprada V; Karanth N G  
AN 2003345491 MEDLINE

L49 ANSWER 7 OF 204 MEDLINE on STN DUPLICATE 4  
TI Large-scale production of CMP-NeuAc and sialylated  
oligosaccharides through bacterial coupling.  
SO Applied microbiology and biotechnology, (2000 Mar) Vol. 53, No. 3, pp.  
257-61.  
Journal code: 8406612. ISSN: 0175-7598.  
AU Endo T; Koizumi S; Tabata K; Ozaki A  
AN 2000233416 MEDLINE

L49 ANSWER 8 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Synthesis of a di- and trisaccharide related to the repeating unit of E.  
coli O128 lipopolysaccharide  
SO Journal of Carbohydrate Chemistry (2000), 19(2), 243-251  
CODEN: JCACDM; ISSN: 0732-8303  
AU Sengupta, Prabal; Basu, Sumanta; Chatterjee, Bishnu P.  
AN 2000:228023 HCAPLUS  
DN 133:30898

L49 ANSWER 9 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Solid-phase synthesis of a bacterial  
oligosaccharide antigen.  
SO Abstracts of Papers, 220th ACS National Meeting, Washington, DC, United  
States, August 20-24, 2000 (2000) ORGN-216  
CODEN: 69FZC3  
AU Seeberger, Peter H.; Melean, Luis G.; Haase, Wilm C.  
AN 2000:796718 HCAPLUS

L49 ANSWER 10 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Large-scale production of GDP-fucose and Lewis X by bacterial coupling  
SO Journal of Industrial Microbiology & Biotechnology (2000), 25(4), 213-217  
CODEN: JIMBFL; ISSN: 1367-5435  
AU Koizumi, S.; Endo, T.; Tabata, K.; Nagano, H.; Ohnishi, J.; Ozaki, A.  
AN 2001:59943 HCAPLUS  
DN 134:236268

L49 ANSWER 11 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN DUPLICATE 5  
TI Uronic acid-containing oligosaccharins: Their biosynthesis, degradation  
and signalling roles in non-diseased plant tissues  
SO PLANT PHYSIOLOGY AND BIOCHEMISTRY, (JAN-FEB 2000) Vol. 38, No. 1-2, pp.  
125-140.  
ISSN: 0981-9428.  
AU Dumville J C; Fry S C (Reprint)  
AN 2000:283091 SCISEARCH

L49 ANSWER 12 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Effect on gout flora of oligosaccharide synthesizing enzymes  
SO Shoka to Kyushu (2000), 23(2), 107-109



CODEN: SHKYEZ; ISSN: 0389-3626

AU Kariya, Kinya; Ogawa, Tomonari; Jo, Takashi  
AN 2001:384881 HCAPLUS  
DN 135:150320

L49 ANSWER 13 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN DUPLICATE 6  
TI Effect of oligosaccharides and fibre substitutes on short-chain fatty acid  
production by human faecal microflora  
SO ANAEROBE, (APR 2000) Vol. 6, No. 2, pp. 87-92.  
ISSN: 1075-9964.  
AU Velazquez M; Davies C; Marett R; Slavina J L; Feirtag J M (Reprint)  
AN 2000:339021 SCISEARCH

L49 ANSWER 14 OF 204 LIFESCI COPYRIGHT 2008 CSA on STN DUPLICATE 7  
TI Functional analysis of chimeras derived from the Sinorhizobium meliloti  
and Mesorhizobium loti nodC genes identifies regions controlling chitin  
oligosaccharide chain length  
SO Molecular and General Genetics [Mol. Gen. Genet.], (20000905) vol. 264,  
no. 1/2, pp. 75-81.  
ISSN: 0026-8925.  
AU Kamst, E.; Breek, C.K.; Spaink, H.P.  
AN 2001:17471 LIFESCI

L49 ANSWER 15 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN  
TI Solid-phase synthesis of a bacterial  
oligosaccharide antigen.  
SO ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, (20 AUG 2000) Vol.  
220, Part 2, pp. U66-U66. MA 216-ORGN.  
ISSN: 0065-7727.  
AU Seeberger P H (Reprint); Melean L G; Haase W C  
AN 2001:131060 SCISEARCH

L49 ANSWER 16 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Study on fructo-oligosaccharide production by  
microbial enzymatic reaction  
SO Shipin Kexue (Beijing) (2000), 21(6), 31-35  
CODEN: SPKHD5; ISSN: 1002-6630  
AU Cao, Xia; Zhang, Wei; Wang, Yingfeng; Yang, Xiushan  
AN 2000:467331 HCAPLUS  
DN 133:149512

L49 ANSWER 17 OF 204 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on  
STN  
TI Solid-phase synthesis of a bacterial  
oligosaccharide antigen.  
SO Abstracts of Papers American Chemical Society, (2000) Vol. 220, No. Part  
2, pp. ORGN 216. print.  
Meeting Info.: 220th National Meeting of the American Chemical Society.  
Washington, DC, Washington DC, USA. August 20-24, 2000. American Chemical  
Society.  
CODEN: ACSRAL. ISSN: 0065-7727.  
AU Seeberger, Peter H. [Reprint author]; Melean, Luis G. [Reprint author];  
Haase, Wilm C. [Reprint author]  
AN 2000:440809 BIOSIS

L49 ANSWER 18 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI A process for preparation of 6-kestose oligosaccharides;  
by Acetobacter polysaccharogenes or Gluconobacter albidus activity on  
sucrose  
AN 1999-06786 BIOTECHDS  
PI JP 11046785 23 Feb 1999

L49 ANSWER 19 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN

TI Growth stimulator for vascular endothelial cells - containing an alginic acid oligosaccharide obtained by treating alginic acid with *Alteromonas* sp. microorganisms or their cultured product  
 PI JP 11043439 A 19990216 (199917)\* JA 7[3]  
 IN HIURA N; KAWADA A; OKADA T; TAKAHARA H

L49 ANSWER 20 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Cloning, expression and characterization of a UDP-galactose 4-epimerase from *Escherichia coli*;  
     plasmid pET15b-galE expression in bacterium for enzyme  
     production and application in alpha-Gal  
     oligosaccharide production for xenotransplantation support  
 SO Biotechnol.Lett.; (1999) 21, 12, 1131-35  
     CODEN: BILED3 ISSN: 0141-5492  
 AU Chen X; Kowal P; Hamad S; Fan H; \*Wang P G  
 AN 2000-02215 BIOTECHDS

L49 ANSWER 21 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Beta-galactooligosaccharide synthesis with beta-galactosidase from *Sulfolobus solfataricus*, *Aspergillus oryzae*, and *Escherichia coli*;  
     oligosaccharide production using thermostable and non-thermostable  
     enzyme  
 SO Enzyme Microb.Technol.; (1999) 25, 6, 509-16  
     CODEN: EMTED2 ISSN: 0141-0229  
 AU Reuter S; Nygaard A R; \*Zimmermann W  
 AN 1999-12884 BIOTECHDS

L49 ANSWER 22 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Synthesis of alpha-galacto-oligosaccharides by a cloned  
     alpha-galactosidase from *Bifidobacterium adolescentis*;  
     galacto-oligosaccharide probiotic production using  
     transformed *Escherichia coli*  
 SO Biotechnol.Lett.; (1999) 21, 5, 441-45  
     CODEN: BILED3 ISSN: 0141-5492  
 AU van den Broek L A M; Ton J; Verdoes J C; van Laere K M J; \*Voragen A G J;  
     Beldman G  
 AN 1999-10111 BIOTECHDS

L49 ANSWER 23 OF 204 MEDLINE on STN DUPLICATE 8  
 TI Microbial production of inulo-oligosaccharides  
     by an endoinulinase from *Pseudomonas* sp. expressed in *Escherichia coli*.  
 SO Journal of bioscience and bioengineering, (1999) Vol. 87, No. 3, pp.  
     291-5.  
     Journal code: 100888800. ISSN: 1389-1723.  
 AU Yun J W; Choi Y J; Song C H; Song S K  
 AN 2005556787 MEDLINE

L49 ANSWER 24 OF 204 MEDLINE on STN DUPLICATE 9  
 TI Oligosaccharide recognition signals and defence reactions in marine  
     plant-microbe interactions.  
 SO Current opinion in microbiology, (1999 Jun) Vol. 2, No. 3, pp. 276-83.  
     Ref: 64  
     Journal code: 9815056. ISSN: 1369-5274.  
 AU Potin P; Bouarab K; Kupper F; Kloareg B  
 AN 1999316463 MEDLINE

L49 ANSWER 25 OF 204 MEDLINE on STN DUPLICATE 10  
 TI Electron beam fragmentation of bacterial polysaccharides as a  
     method of producing oligosaccharides for the  
     preparation of conjugate vaccines.  
 SO FEMS microbiology letters, (1999 May 15) Vol. 174, No. 2, pp. 255-63.  
     Journal code: 7705721. ISSN: 0378-1097.  
 AU Pawlowski A; Svenson S B  
 AN 1999271175 MEDLINE

L49 ANSWER 26 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Isolation of endophytes from plants in Southeast Asia and Japan, and their identification by 18S rRNA gene  
 SO Biotechnology for Sustainable Utilization of Biological Resources in the Tropics (1999), 13, 227-232  
 CODEN: BSUTFT  
 AU Tanaka, Michiko; Sukiman, Harmastini; Takebayashi, Miho; Saito, Katsuichi; Suto, Manabu; Prana, Titik K.; Prana, Made Sri; Tomita, Fusao  
 AN 2000:309091 HCAPLUS  
 DN 133:234880

L49 ANSWER 27 OF 204 MEDLINE on STN DUPLICATE 11  
 TI The living factory: in vivo production of N-acetylglucosamine containing carbohydrates in E. coli.  
 SO Glycoconjugate journal, (1999 Mar) Vol. 16, No. 3, pp. 205-12.  
 Journal code: 8603310. ISSN: 0282-0080.  
 AU Bettler E; Samain E; Chazalet V; Bosso C; Heyraud A; Joziassse D H; Wakarchuk W W; Imberty A; Geremia A R  
 AN 2000062031 MEDLINE

L49 ANSWER 28 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 12  
 TI Functional domains in the chitin oligosaccharide synthase NodC and related beta-polysaccharide synthases  
 SO TRENDS IN GLYCOSCIENCE AND GLYCOTECHNOLOGY, (JUL 1999) Vol. 11, No. 60, pp. 187-199.  
 ISSN: 0915-7352.  
 AU Kamst E (Reprint); Spaink P H  
 AN 1999:787324 SCISEARCH

L49 ANSWER 29 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 13  
 TI Chemical synthesis of N-acetylglucosamine derivatives and their use as glycosyl accepters by the Mesorhizobium loti chitin oligosaccharide synthase NodC  
 SO CARBOHYDRATE RESEARCH, (15 OCT 1999) Vol. 321, No. 3-4, pp. 176-189.  
 ISSN: 0008-6215.  
 AU Kamst E; Zegelaar-Jaarsveld K; van der Marel G A; van Boom J H; Lugtenberg B J J; Spaink H P (Reprint)  
 AN 1999:941201 SCISEARCH

L49 ANSWER 30 OF 204 LIFESCI COPYRIGHT 2008 CSA on STN DUPLICATE 14  
 TI Synthesis of inner core antigens related to Chlamydia, Pseudomonas and Acinetobacter LPS  
 SO Journal of Endotoxin Research [J. Endotoxin Res.], (19990000) vol. 5, no. 3, pp. 157-163.  
 ISSN: 0968-0519.  
 AU Kosma, P.; Reiter, A.; Zamyatina, A.; Wimmer, N.; Glueck, A.; Brade, H.  
 AN 2000:15260 LIFESCI

L49 ANSWER 31 OF 204 MEDLINE on STN DUPLICATE 15  
 TI Synthesis of oligosaccharides by bacterial enzymes.  
 SO Glycoconjugate journal, (1999 Feb) Vol. 16, No. 2, pp. 141-6. Ref: 54  
 Journal code: 8603310. ISSN: 0282-0080.  
 AU Johnson K F  
 AN 2000077660 MEDLINE

L49 ANSWER 32 OF 204 MEDLINE on STN DUPLICATE 16  
 TI Enzymatic synthesis of Kdn oligosaccharides by a bacterial alpha-(2-->6)-sialyltransferase.  
 SO Carbohydrate research, (1999 Jan 31) Vol. 315, No. 1-2, pp. 137-41.  
 Journal code: 0043535. ISSN: 0008-6215.  
 AU Kajihara Y; Akai S; Nakagawa T; Sato R; Ebata T; Kodama H; Sato K  
 AN 1999313754 MEDLINE

L49 ANSWER 33 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Isolation of chitinolytic bacteria from the viscera of Korean bony fishes and optimization of the enzyme production  
 SO Journal of Fisheries Science and Technology (1999), 2(1), 105-111  
 CODEN: JFITFY; ISSN: 1226-9204  
 AU Lee, Jung-Suck; Joo, Dong-Sik; Cho, Soon-Yeong; Cho, Man-Gi; Lee, Eung-Ho  
 AN 1999:731614 HCAPLUS  
 DN 132:90444

L49 ANSWER 34 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 17  
 TI Production of inulo-oligosaccharides from inulin by recombinant E-coli containing endoinulinase activity  
 SO BIOPROCESS ENGINEERING, (AUG 1999) Vol. 21, No. 2, pp. 101-106. ISSN: 0178-515X.  
 AU Yun J W (Reprint); Song C H; Choi J W; Choi Y J; Song S K  
 AN 1999:629397 SCISEARCH

L49 ANSWER 35 OF 204 MEDLINE on STN DUPLICATE 18  
 TI Function of chitin oligosaccharides in plant and animal development.  
 SO EXS, (1999) Vol. 87, pp. 71-83. Ref: 59  
 Journal code: 9204529. ISSN: 1023-294X.  
 AU Bakkers J; Kijne J W; Spaik H P  
 AN 2000391648 MEDLINE

L49 ANSWER 36 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Problems and strategies of oligosaccharide synthesis using microbial enzymes  
 SO Shipin Yu Fajiao Gongye (1999), 25(4), 41-47  
 CODEN: SPYYDO; ISSN: 0253-990X  
 AU Cao, Jinsong; Wang, Xiaoqin; Peng, Zhiying  
 AN 1999:715896 HCAPLUS  
 DN 132:264230

L49 ANSWER 37 OF 204 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN  
 TI Production of O-acetylated and sulfated chitooligosaccharides by recombinant Escherichia coli strains harboring different combinations of nod genes.  
 SO Journal of Biotechnology, (June 11, 1999) Vol. 72, No. 1-2, pp. 33-47. print.  
 CODEN: JBITD4. ISSN: 0168-1656.  
 AU Samain, Eric [Reprint author]; Chazalet, Valerie; Geremia, Roberto A.  
 AN 1999:349692 BIOSIS

L49 ANSWER 38 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 19  
 TI Analysis and characterisation of cyclodextrins and their inclusion complexes by affinity capillary electrophoresis  
 SO JOURNAL OF CHROMATOGRAPHY A, (19 MAR 1999) Vol. 836, No. 1, pp. 3-14. ISSN: 0021-9673.  
 AU Larsen K L; Zimmermann W (Reprint)  
 AN 1999:250031 SCISEARCH

L49 ANSWER 39 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Expressing high levels of glycosyltransferases; recombinant enzyme production via vector-mediated glycosyltransferase gene transfer and expression in Escherichia coli for therapeutic oligosaccharide production  
 AU Wakarchuk W W; Young N M  
 AN 1999-02440 BIOTECHDS  
 PI WO 9854331 3 Dec 1998

L49 ANSWER 40 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

TI Gene encoding a beta-galactoside-alpha-2,6-sialyltransferase of bacterial origin;  
Photobacterium damsela recombinant enzyme production by vector expression in Escherichia coli for use in sialylated oligosaccharide production

AU Yamamoto T; Nakashizuka M; Terada I  
AN 1998-10644 BIOTECHDS  
PI WO 9838315 3 Sep 1998

L49 ANSWER 41 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Preparation of fructosyl-containing oligosaccharides and products therefrom for bifidobacterium-nourishing medium  
SO U.S., 7 pp., Cont. of U.S. Ser. No. 282,807, abandoned.  
CODEN: USXXAM  
IN Whistler, Roy L.; Bemiller, James N.  
AN 1998:799690 HCAPLUS  
DN 130:35374

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5843922	A	19981201	US 1996-662201	19960611

L49 ANSWER 42 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Use of anti-endotoxin synthetic peptides and anti-endotoxin antibodies - for the prophylaxis and treatment of endotoxemia and septic shock and other conditions associated with lipopolysaccharide.  
PI EP 842666 A2 19980520 (199824)\* EN 5[0]  
R: AL AT BE CH DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI  
IT 1287158 B 19980804 (200055) IT  
IN PORRO M

L49 ANSWER 43 OF 204 MEDLINE on STN DUPLICATE 20  
TI Use of Escherichia coli polyphosphate kinase for oligosaccharide synthesis.  
SO Bioscience, biotechnology, and biochemistry, (1998 Aug) Vol. 62, No. 8, pp. 1594-6.  
Journal code: 9205717. ISSN: 0916-8451.  
AU Noguchi T; Shiba T  
AN 1998430132 MEDLINE

L49 ANSWER 44 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Use of Escherichia coli polyphosphate-kinase for oligosaccharide synthesis;  
recombinant enzyme production and purification via vector plasmid pTrc-PPK-mediated ppk gene transfer and expression in bacterium  
SO Biosci.Biotechnol.Biochem.; (1998) 62, 8, 1594-96  
CODEN: BBBIEJ ISSN: 0916-8451  
AU Hoguchi T; Shiba T  
AN 1999-12277 BIOTECHDS

L49 ANSWER 45 OF 204 MEDLINE on STN DUPLICATE 21  
TI Large-scale production of UDP-galactose and globotriose by coupling metabolically engineered bacteria.  
SO Nature biotechnology, (1998 Sep) Vol. 16, No. 9, pp. 847-50.  
Journal code: 9604648. ISSN: 1087-0156.  
AU Koizumi S; Endo T; Tabata K; Ozaki A  
AN 1998414050 MEDLINE

L49 ANSWER 46 OF 204 MEDLINE on STN DUPLICATE 22  
TI Isolation and structural analyses of positional isomers of 6(1),6m-di-O-alpha-D-mannopyranosyl-cyclomaltooctaose (m = 2-5) and 6-O-alpha-(n-O-alpha-D-mannopyranosyl)-alpha-D-mannopyranosyl-cyclomaltooctaose (n = 2, 3, 4, and 6).  
SO Carbohydrate research, (1998 Aug) Vol. 310, No. 4, pp. 229-38.  
Journal code: 0043535. ISSN: 0008-6215.

AU Okada Y; Matsuda K; Koizumi K; Hamayasu K; Hashimoto H; Kitahata S  
AN 1999038702 MEDLINE

L49 ANSWER 47 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI New heat stable xylanase and related nucleic acid and vectors;  
thermostable endo-1,4-beta-D-xylanase expression from new vector in  
microorganism for use in xylose, xylo-oligosaccharide  
production, pulp bleaching, feedstuff treatment, etc.  
AU Perez S; Breton C; Debeire P  
AN 1997-07295 BIOTECHDS  
PI WO 9714803 24 Apr 1997

L49 ANSWER 48 OF 204 MEDLINE on STN DUPLICATE 23  
TI Chitin oligosaccharides can induce cortical cell division in roots of  
Vicia sativa when delivered by ballistic microtargeting.  
SO Development (Cambridge, England), (1997 Dec) Vol. 124, No. 23, pp.  
4887-95.  
Journal code: 8701744. ISSN: 0950-1991.  
AU Schlaman H R; Gisel A A; Quaadvlieg N E; Bloemberg G V; Lugtenberg B J;  
Kijne J W; Potrykus I; Spaink H P; Sautter C  
AN 1998088701 MEDLINE

L49 ANSWER 49 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN DUPLICATE 24  
TI Honeydew sugars and osmoregulation in the pea aphid Acyrthosiphon pisum  
SO JOURNAL OF EXPERIMENTAL BIOLOGY, (AUG 1997) Vol. 200, No. 15, pp.  
2137-2143.  
ISSN: 0022-0949.  
AU Wilkinson T L (Reprint); Ashford D A; Pritchard J; Douglas A E  
AN 1997:587016 SCISEARCH

L49 ANSWER 50 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Comparison of two levanases producing specific lengths of  
levan-oligosaccharides  
SO Kagaku to Kogyo (Osaka) (1997), 71(9), 386-391  
CODEN: KKGOAG; ISSN: 0368-5918  
AU Murakami, Hiromi; Kitahata, Sumio  
AN 1997:611452 HCAPLUS  
DN 127:259432

L49 ANSWER 51 OF 204 MEDLINE on STN DUPLICATE 25  
TI Role of intestinal bacteria in nutrient metabolism.  
SO JPEN. Journal of parenteral and enteral nutrition, (1997 Nov-Dec) Vol. 21,  
No. 6, pp. 357-65. Ref: 104  
Journal code: 7804134. ISSN: 0148-6071.  
AU Cummings J H; Macfarlane G T  
AN 1998069210 MEDLINE

L49 ANSWER 52 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI An endo-chitosanase from Bacillus sp. GM44 that produces chitosan  
oligosaccharides with high degree of polymerization  
SO Advances in Chitin Science (1997), 2, 296-301  
CODEN: ACSCFF  
AU Choi, Yeun Jin; Kim, Eun Jung; Kim, Tae Un; Shin, Yong Chul  
AN 1998:181377 HCAPLUS  
DN 128:291908

L49 ANSWER 53 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN DUPLICATE 26  
TI Synthesis of oligosaccharides of bacterial  
origin containing heptoses, uronic acids and fructofuranoses as synthetic  
challenges  
SO GLYCOSCIENCE SYNTHESIS OF OLIGOSACCHARIDES AND GLYCOCONJUGATES, (1997)  
Vol. 186, pp. 171-202.  
ISSN: 0342-6793.

AU Oscarson S (Reprint)  
AN 1997:240441 SCISEARCH

L49 ANSWER 54 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Study on the production of oligosaccharides by using enzymes from *Bacillus* genus  
SO Oyo Toshitsu Kagaku (1997), 44(1), 61-67  
CODEN: OTKAE3; ISSN: 1340-3494  
AU Oguma, Tetsuya  
AN 1997:369287 HCAPLUS  
DN 127:49228

L49 ANSWER 55 OF 204 MEDLINE on STN DUPLICATE 27  
TI Gram-scale synthesis of recombinant chitoooligosaccharides in *Escherichia coli*.  
SO Carbohydrate research, (1997 Jul 11) Vol. 302, No. 1-2, pp. 35-42.  
Journal code: 0043535. ISSN: 0008-6215.  
AU Samain E; Drouillard S; Heyraud A; Driguez H; Geremia R A  
AN 97393445 MEDLINE

L49 ANSWER 56 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 28  
TI Role of intestinal bacteria in nutrient metabolism  
SO CLINICAL NUTRITION, (FEB 1997) Vol. 16, No. 1, pp. 3-11.  
ISSN: 0261-5614.  
AU Cummings J H (Reprint); Macfarlane G T  
AN 1997:315016 SCISEARCH

L49 ANSWER 57 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI New *Aspergillus fumigatus* mutant capable of decomposing chitosan - is used to produce chitosan-oligosaccharide by culturing the microbe  
PI JP 08322554 A 19961210 (199718)\* JA 7[5]  
JP 2797081 B2 19980917 (199842) JA 7  
KR 140430 B1 19980701 (200017) KO  
IN JUNG B; LEE S

L49 ANSWER 58 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI *Rhizobium leguminosarum* bv. *trifolii* produces lipo-chitin oligosaccharides with node-dependent highly unsaturated fatty acyl moieties. An electrospray ionization and collision-induced dissociation tandem mass spectrometric study  
SO Journal of Biological Chemistry (1996), 271(37), 22563-22569  
CODEN: JBCHA3; ISSN: 0021-9258  
AU van der Drift, Koen M. G. M.; Spaink, Herman P.; Bloemberg, Guido V.; van Brussel, Anton A. N.; Lugtenberg, Ben J. J.; Haverkamp, Johan; Thomas-Oates, Jane E.  
AN 1996:572214 HCAPLUS  
DN 125:269553

L49 ANSWER 59 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Production of galacto-oligosaccharide from lactose by *Sterigmatomyces elviae* CBS8119. [Erratum to document cited in CA123:312277]  
SO Applied and Environmental Microbiology (1996), 62(4), 1491  
CODEN: AEMIDF; ISSN: 0099-2240  
AU Onishi, Norimasa; Yamashiro, Akihiro; Yokozeki, Kenzo  
AN 1996:213785 HCAPLUS  
DN 125:56295

L49 ANSWER 60 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Controlled bioconversion of the extracellular polysaccharide of *Klebsiella pneumoniae* LMG 3136;  
L-fucose-containing polysaccharide production and degradation by soil-derived microorganism for oligosaccharide production (conference paper)

SO Meded.Fac.Landbouwwet.Rijksuniv.Gent; (1996) 61, 4A, 1445-48  
 CODEN: MFLRA3 ISSN: 0368-9697  
 Applied Biotechnology, 10th Forum, Ghent, Belgium, 26-27 September, 1996.  
 AU Vanhooren P T; Mornie C J C; Vandamme E J  
 AN 1996-15510 BIOTECHDS

L49 ANSWER 61 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
 on STN DUPLICATE 29  
 TI Chemical approaches to bacterial vaccines. Synthesis  
 of mycobacterial oligosaccharide-protein conjugates for use as  
 serodiagnostics and immunogens  
 SO BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, (18 JUN 1996) Vol. 6, No. 12,  
 pp. 1387-1392.  
 ISSN: 0960-894X.  
 AU Dubois E P (Reprint); Robbins J B; Pozsgay V  
 AN 1996:487315 SCISEARCH

L49 ANSWER 62 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Cladinose analogs of sixteen-membered macrolide antibiotics. I. Synthesis  
 of 4-O-alkyl-L-cladinose analogs via glycosidation  
 SO Journal of Antibiotics (1996), 49(6), 582-592  
 CODEN: JANTAJ; ISSN: 0021-8820  
 AU Kurihara, Ken-ichi; Ajito, Keichi; Shibahara, Seiji; Ishizuka, Tsuneo;  
 Hara, Osamu; Araake, Minako; Omoto, Shioji  
 AN 1996:390305 HCAPLUS  
 DN 125:168505

L49 ANSWER 63 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Production and application of microbial endoglycosidases acting on  
 oligosaccharides of glycoconjugates  
 SO Microbial Utilization of Renewable Resources (1996), Volume Date 1995, 9,  
 420-429  
 CODEN: MURRE6  
 AU Yamamoto, Kenji; Kadowaki, Setsu; Takegawa, Kaoru; Fan, Jian-Qiang;  
 Ashida, Hisashi; Kumagai, Hidehiko; Tochikura, Tatsurokuro  
 AN 1996:510616 HCAPLUS  
 DN 125:161907

L49 ANSWER 64 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Sugar signals and legume lectins  
 SO Biology of Plant-Microbe Interactions (1996), Volume 1, 399-402 Publisher:  
 International Society for Molecular Plant-Microbe Interactions, St. Paul,  
 Minn.  
 CODEN: BPPIAC  
 AU Diaz, Clara L.; Spaink, Herman P.; Kijne, Jan W.  
 AN 1997:239949 HCAPLUS  
 DN 126:235885

L49 ANSWER 65 OF 204 MEDLINE on STN DUPLICATE 30  
 TI Structural determination of symbiotic nodulation factors from the broad  
 host-range Rhizobium species NGR234.  
 SO Carbohydrate research, (1996 Aug 19) Vol. 289, pp. 115-36.  
 Journal code: 0043535. ISSN: 0008-6215.  
 AU Price N P; Talmont F; Wieruszeski J M; Prome D; Prome J C  
 AN 96399206 MEDLINE

L49 ANSWER 66 OF 204 NTIS COPYRIGHT 2008 NTIS on STN  
 TI Seibutsu kino wo riyoshita chikyu kankyo kaizen gijutsu ni kansuru  
 chosa. Lignobio process no kochiku. (Investigation into technology for  
 improving the global environment using biological functions.  
 Construction of the lignobiological process).  
 NR DE96739631/XAB; NEDO-GET-9402  
 252p; Mar 1995  
 PD Mar 1995  
 AN 1996(19):04476 NTIS



L49 ANSWER 67 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Production of microorganism to yield chitosan oligosaccharide;  
 purification from Absidia coerulea or Mucor tuberculisporus by cell wall lysis using Bacillus sp. chitosanase or Trichoderma sp. cellulase lytic enzyme  
 AN 1995-11530 BIOTECHDS  
 PI JP 07155193 20 Jun 1995

L49 ANSWER 68 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI New protein with cycloinulo-oligosaccharide-fructanotransferase activity; recombinant enzyme production by gene expression in Bacillus circulans  
 AN 1995-06720 BIOTECHDS  
 PI JP 07041500 10 Feb 1995

L49 ANSWER 69 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
 TI New pyrazine derivative inhibiting agglutination of erythrocytes or platelets - is prepared from chitin or chitin oligosaccharide by reacting with an enzyme produced by Vibrio alginolyticus  
 PI JP 07118286 A 19950509 (199527)\* JA 7[4]  
 IN MATSUDA A; MURAO S; OKAMURA K; TONE H; YANAI T

L49 ANSWER 70 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
 TI Bacterial toxin neutraliser - comprises the aminocarbonyl prod. obtained from protein and oligosaccharide having galactose at non-reducing terminal and glucose at reducing terminal of saccharide chain  
 PI JP 07033679 A 19950203 (199515)\* JA 4[0]  
 IN SHIDA H; TAKAMIZAWA K

L49 ANSWER 71 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
 TI Producing oligosaccharide(s) containing panose - by inoculating Saccharomyces microbes in medium containing maltose as carbon source, culturing in aerobic conditions and separating produced panose  
 PI JP 07008287 A 19950113 (199512)\* JA 4[0]  
 IN NISHIDA K; OCHIAI T

L49 ANSWER 72 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
 TI Producing oligosaccharide(s) containing panose - by inoculating Monilella microbes to medium containing maltose carbon source, aerobically culturing and separating obtd. panose  
 PI JP 07008286 A 19950113 (199512)\* JA 4[0]  
 IN NISHIDA K; OCHIAI T

L49 ANSWER 73 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
 TI Panose-containing oligosaccharide production for food and drink or drugs - comprises inoculating Debaryomyces in maltose-containing medium, and culturing microbe in aerobic conditions  
 PI JP 07008285 A 19950113 (199512)\* JA 4[0]  
 IN NISHIDA K; OCHIAI T

L49 ANSWER 74 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
 TI Panose containing oligosaccharide production, used for food, drink or drugs - involves culturing Aureobasidium microbes under aerobic conditions using maltose containing medium  
 PI JP 07008283 A 19950113 (199512)\* JA 6[0]  
 IN NISHIDA K; OCHIAI T; WAKAO K

L49 ANSWER 75 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Mass spectrometric analysis of chitin oligosaccharides produced by Rhizobium NodC protein in Escherichia coli  
 SO Journal of Bacteriology (1995), 177(21), 6282-5  
 CODEN: JOBAAY; ISSN: 0021-9193  
 AU Kamst, Eric; van der Drift, Koen M. G. M.; Thomas-Oates, Jane E.; Lugtenberg, Ben J. J.; Spaik, Herman P.

AN 1995:904021 HCAPLUS  
DN 123:310015

L49 ANSWER 76 OF 204 MEDLINE on STN DUPLICATE 32  
TI Production of galacto-oligosaccharide from lactose by *Sterigmatomyces elviae* CBS8119.  
SO Applied and environmental microbiology, (1995 Nov) Vol. 61, No. 11, pp. 4022-5.  
Journal code: 7605801. ISSN: 0099-2240.  
AU Onishi N; Yamashiro A; Yokozeki K  
AN 96064415 MEDLINE

L49 ANSWER 77 OF 204 MEDLINE on STN DUPLICATE 33  
TI Synthesis of "Nod"-like chitin oligosaccharides by the *Xenopus* developmental protein DG42.  
SO Proceedings of the National Academy of Sciences of the United States of America, (1995 Apr 11) Vol. 92, No. 8, pp. 3498-501.  
Journal code: 7505876. ISSN: 0027-8424.  
AU Semino C E; Robbins P W  
AN 95241529 MEDLINE

L49 ANSWER 78 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Studies on a recombinant amylosucrase;  
Neisseria polysaccharea enzyme expression in *Escherichia coli*, for potential use in oligosaccharide production (conference paper)  
SO Prog.Biotechnol.; (1995) 10, 313-20  
CODEN: PBITE3 ISSN: 0921-0423  
Carbohydrate Bioengineering, International Conference, Elsinore, Denmark, 23-26 April, 1995.  
AU Remaud-Simeon M; Albaret F; Canard B; Varlet I; Colonna P; Willemot R M; Monsan P  
AN 1996-10216 BIOTECHDS

L49 ANSWER 79 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Sannamycin-type amino glycoside antibiotics of natural and non-natural (mirror-image) configuration - total syntheses and biological activity  
SO Liebig's Annalen (1995), (2), 291-316  
CODEN: LANAEM; ISSN: 0947-3440  
AU Ludin, Christian; Weller, Thomas; Seitz, Bernhard; Meier, Walter; Erbeck, Silke; Hoenke, Christoph; Krieger, Richard; Keller, Manfred; Knothe, Lothar; et al.  
AN 1995:348064 HCAPLUS  
DN 123:257178

L49 ANSWER 80 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 34  
TI BIOTECHNICAL MODIFICATION OF CARBOHYDRATES  
SO FEMS MICROBIOLOGY REVIEWS, (FEB 1995) Vol. 16, No. 2-3, pp. 163-186.  
ISSN: 0168-6445.  
AU VANDAMME E J (Reprint); SOETAERT W  
AN 1995:170580 SCISEARCH

L49 ANSWER 81 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Oligosaccharide pharmaceuticals  
SO Biol. Approaches Ration. Drug Des. (1995), 131-47. Editor(s): Weiner, David B.; Williams, William V. Publisher: CRC, Boca Raton, Fla.  
CODEN: 61EZA8  
AU Roth, Stephen; Zopf, David  
AN 1995:546987 HCAPLUS  
DN 123:112522

L49 ANSWER 82 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Synthesis of 5-deoxy-5-epifluoro derivatives of arbekacin, amikacin, and 1-N-[(S)-4-amino-2-hydroxybutanoyl]tobramycin (study on structure-toxicity

relationships)  
SO Carbohydrate Research (1995), 276(1), 75-89  
CODEN: CRBRAT; ISSN: 0008-6215  
AU Shitara, Tetsuo; Umemura, Eijiro; Tsuchiya, Tsutomu; Matsuno, Tomio  
AN 1995:902492 HCAPLUS  
DN 124:176722

L49 ANSWER 83 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Production of fructosylxyloside from *Scopulaliopsis brevicaulis*. II.  
Method for crystallizing fructosylxyloside in water and the  
characteristics of crystals  
SO Seito Gijutsu Kenkyu Kaishi (1995), 43, 43-9  
CODEN: SGIKA6; ISSN: 0370-9841  
AU Takeda, Hiroyuki; Sato, Yuzi; Tukada, Masayuki; Hidano, Tetuhiro  
AN 1996:261077 HCAPLUS  
DN 124:287170

L49 ANSWER 84 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Studies on oligosaccharides related to gram-negative bacterial O-antigen  
SO Huaxue Tongbao (1995), (3), 25-30  
CODEN: HHTPAU; ISSN: 0441-3776  
AU Zhang, Jian; Mao, Jianmin; Cai, Mengshen  
AN 1995:886680 HCAPLUS  
DN 123:282954

L49 ANSWER 85 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Production of *Bacillus licheniformis* maltogenic amylase (BLMA) in  
recombinant *E. coli*;  
over-production in *Escherichia coli* high cell density fed-batch  
culture by suppression of citric acid formation (conference abstract)  
SO Abstr.Pap.Am.Chem.Soc.; (1995) 209 Meet., Pt.1, BIOT119  
CODEN: ACSRAL ISSN: 0065-7727  
209th ACS National Meeting, Anaheim, CA, 2-6 April, 1995.  
AU Lee W J; Kim M D; Park K H; Seo J H  
AN 1995-13425 BIOTECHDS

L49 ANSWER 86 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Glycosyltransferases in oligosaccharide synthesis: selective  
beta-mannosylation of chitobiose to the N-linked core trisaccharide of  
glycoproteins;  
beta-mannosyltransferase over-expression in *Escherichia coli*  
and purification and immobilization for oligosaccharide  
production (conference abstract)  
SO Abstr.Pap.Am.Chem.Soc.; (1995) 209 Meet., Pt.1, BIOT114  
CODEN: ACSRAL ISSN: 0065-7727  
209th ACS National Meeting, Anaheim, CA, 2-6 April, 1995.  
AU Flitsch S L  
AN 1995-13381 BIOTECHDS

L49 ANSWER 87 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI A gene encoding a protein having agarase activity;  
*Vibrio* sp. recombinant agarase production following gene cloning and  
expression in *Escherichia coli*; potential application in  
neo-agaro-oligosaccharide production  
AN 1995-01816 BIOTECHDS  
PI JP 06284888 11 Oct 1994

L49 ANSWER 88 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Cyclic inulo-oligosaccharide(s) for foodstuff additives - obtd. by  
treating inulin with the supernatant or cells from culture of a  
microorganism which produces a suitable enzyme  
PI WO 9410295 A1 19940511 (199420)\* JA 15[0]  
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE  
W: US  
JP 06141856 A 19940524 (199425) JA 3[0]

JP 06141879      A    19940524 (199425)    JA    4  
IN    KUSHIBE S; MORIMOTO H; MORIMOTO Y

L49    ANSWER 89 OF 204    WPIDS COPYRIGHT 2008      THE THOMSON CORP on STN  
TI    New tetra:glycose and its partial fatty acid ester used as surfactant -  
obtd. by culturing microorganisms of Actinomycetes or Micropolyspora genus  
in medium  
PI    JP 06298784      A    19941025 (199502)\*    JA    5[0]  
JP 2564752      B2 19961218 (199704)    JA    5[0]  
IN    GAMA Y; ISHIGAMI Y; ITO T; SOMEYA J; TAKAMORI Y

L49    ANSWER 90 OF 204    WPIDS COPYRIGHT 2008      THE THOMSON CORP on STN  
TI    New cyclo-iso:malto-oligosaccharide(s) - are inclusion agents which can  
solubilise and stabilise substances and for use in e.g. medicaments and  
food  
PI    EP 608636      A1 19940803 (199430)\*    EN    15[4]  
R: DE FR GB NL SE  
JP 06197783      A    19940719 (199433)    JA    6[3]  
US 5364936      A    19941115 (199445)    EN    10[4]  
JP 07008276      A    19950113 (199512)    JA    7  
US 5453369      A    19950926 (199544)    EN    10[4]  
EP 608636      B1 19970305 (199714)    EN    17[4]  
R: DE FR GB NL SE  
DE 69308531      E    19970410 (199720)    DE  
JP 3075873      B2 20000814 (200043)    JA    6  
JP 3117328      B2 20001211 (200101)    JA    9  
IN    HORIUCHI T; OGUMA T; OGUMAM T; OGUMAN T; TOBE K

L49    ANSWER 91 OF 204    HCAPLUS COPYRIGHT 2008 ACS on STN  
TI    Recombinant whole cells as catalysts for enzymic synthesis of  
oligosaccharides and glycopeptides  
SO    Angewandte Chemie (1994), 106(12), 1346-7 (See also Angew. Chem., Int. Ed.  
Engl., 1994, 33(12), 1241-2)  
CODEN: ANCEAD; ISSN: 0044-8249  
AU    Herrmann, Guido F.; Wang, Peng; Shen, Gwo-Jenn; Wong, Chi-Huey  
AN    1994:555800    HCAPLUS  
DN    121:155800

L49    ANSWER 92 OF 204    BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI    On the action mechanism of cyclomaltodextrin-glucanotransferases from  
alkalophilic, thermophilic and mesophilic microorganisms;  
cyclomaltodextrin-glucanotransferase characterization for use in  
cyclodextrin production  
SO    Biokhimiya; (1994) 59, 8, 1122-29  
CODEN: BIOHAO  
AU    Abelian V H; Yamamoto T; Afrikian E G  
AN    1994-14334    BIOTECHDS

L49    ANSWER 93 OF 204    HCAPLUS COPYRIGHT 2008 ACS on STN  
TI    The in vitro biosynthesis of functional nodulation factors (Nod Rm)  
produced by Rhizobium meliloti 1021  
SO    Cellular and Molecular Biology (Paris) (1994), 40(7), 1029-37  
CODEN: CMOBEF; ISSN: 0145-5680  
AU    Semino, Carlos E.; Dankert, Marcelo A.  
AN    1995:140594    HCAPLUS  
DN    122:27438

L49    ANSWER 94 OF 204      MEDLINE on STN                      DUPLICATE 35  
TI    Nodulation protein NodL of Rhizobium leguminosarum O-acetylates  
lipo-oligosaccharides, chitin fragments and N-acetylglucosamine in vitro.  
SO    Molecular microbiology, (1994 Feb) Vol. 11, No. 4, pp. 793-804.  
Journal code: 8712028. ISSN: 0950-382X.  
AU    Bloemberg G V; Thomas-Oates J E; Lugtenberg B J; Spaink H P  
AN    94254735      MEDLINE

L49 ANSWER 95 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Molecular signals related to the nodulation of legumes by rhizobia  
 SO Revista Brasileira de Ciencia do Solo (1994), 18(3), 339-64  
 CODEN: RBCSDP; ISSN: 0100-0683  
 AU Hungria, M.  
 AN 1995:669935 HCAPLUS  
 DN 123:193547

L49 ANSWER 96 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Batch production of high-content fructo-oligosaccharides from sucrose by  
 the mixed-enzyme system of beta-fructofuranosidase and glucose-oxidase;  
 application as a sweetener  
 SO J.Ferment.Bioeng.; (1994) 77, 2, 159-63  
 CODEN: JFBIEX  
 AU Yun J W; Lee M. G; \*Song S K  
 AN 1994-05190 BIOTECHDS

L49 ANSWER 97 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI The molecular basis of host specificity in the Rhizobium  
 leguminosarum-plant interaction  
 SO Current Plant Science and Biotechnology in Agriculture (1994), 21(Advances  
 in Molecular Genetics of Plant-Microbe Interactions, Vol. 3), 91-8  
 CODEN: CPBAE2; ISSN: 0924-1949  
 AU Spaink, Herman P.; Bloemberg, Guido V.; Wijffjes, Andre H. M.; Ritsema,  
 Tita; Geiger, Otto; Lopez-Lara, Isabel M.; Hartevelde, Marga;  
 Kafetzopoulos, Dimitris; Brussel, van Anton A. N.; et al.  
 AN 1995:671648 HCAPLUS  
 DN 123:79085

L49 ANSWER 98 OF 204 MEDLINE on STN DUPLICATE 36  
 TI The molecular basis of the host specificity of the Rhizobium bacteria.  
 SO Antonie van Leeuwenhoek, (1994) Vol. 65, No. 2, pp. 81-98. Ref: 49  
 Journal code: 0372625. ISSN: 0003-6072.  
 AU Spaink H P  
 AN 95070066 MEDLINE

L49 ANSWER 99 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Large scale heterologous expression, purification and synthetic studies  
 of an alpha-1,2-mannosyltransferase;  
 gene cloning in Escherichia coli for use in  
 oligosaccharide and glycopeptide production  
 (conference abstract)  
 SO Abstr.Pap.Am.Chem.Soc.; (1994) 207 Meet., Pt.1, BIOT156  
 CODEN: ACSRAL  
 AU Herrmann G F; Wong C H  
 AN 1994-06460 BIOTECHDS

L49 ANSWER 100 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Sebum secretagogue;  
 prepared from malto-oligosaccharide e.g. maltotriose, maltotetraose or  
 maltopentaose, which is prepared by partial starch hydrolysis using  
 acid, amylase or alpha-amylase  
 AN 1994-01419 BIOTECHDS  
 PI JP 05294837 9 Nov 1993

L49 ANSWER 101 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Production of bacteriostatic oligosaccharide  
 alginate for food preservative;  
 involves culturing an alginate-lyase-producing Vibrio sp in culture  
 medium containing sodium alginate and isolating the antibiotic  
 produced  
 AN 1994-01571 BIOTECHDS  
 PI JP 05252970 5 Oct 1993

L49 ANSWER 102 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

TI A method for the preparation of cello-oligosaccharide;  
cellulase pretreatment to remove beta-glucosidase activity  
AN 1993-10022 BIOTECHDS  
PI JP 05115293 14 May 1993

L49 ANSWER 103 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Fermentation accelerators containing oligosaccharides for meat products  
and manufacture of meat products with them  
SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

IN Shimamura, Seiichi; Tamura, Yoshitaka; Mizota, Teruhiko; Komuro, Akira

AN 1993:515965 HCAPLUS

DN 119:115965

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----

PI JP 05103631	A	19930427	JP 1991-269693	19911017
JP 2885554	B2	19990426		

L49 ANSWER 104 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Chitin oligosaccharides, chitin, or its partial degradation  
products as bactericides and fungicides

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

IN Shimai, Yoshuki; Tsukuda, Koji; Seino, Haruyoshi

AN 1993:471245 HCAPLUS

DN 119:71245

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----

PI JP 05092926	A	19930416	JP 1991-99878	19910201
----------------	---	----------	---------------	----------

L49 ANSWER 105 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN

TI Production of brown algae decomposition prod. for oligosaccharide(s)  
production -

by decomposing brown algae using enzymes produced by microorganisms  
belonging to genus Altermonas

PI JP 05030988 A 19930209 (199311)\* JA 4[0]

JP 3079183 B2 20000821 (200043) JA 5

IN HIURA N; SATO R; TAKEDA T

L49 ANSWER 106 OF 204 MEDLINE on STN DUPLICATE 39

TI Lipo-oligosaccharides of Rhizobium induce infection-related early nodulin  
gene expression in pea root hairs.

SO The Plant journal : for cell and molecular biology, (1993 Oct) Vol. 4, No.  
4, pp. 727-33.

Journal code: 9207397. ISSN: 0960-7412.

AU Horvath B; Heidstra R; Lados M; Moerman M; Spaink H P; Prome J C; van  
Kammen A; Bisseling T

AN 94073227 MEDLINE

L49 ANSWER 107 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Structural analysis of two oligosaccharide bisphosphates isolated from the  
lipopolysaccharide of a recombinant strain of Escherichia coli F515 (Re  
chemotype) expressing the genus-specific epitope of Chlamydia  
lipopolysaccharide

SO European Journal of Biochemistry (1993), 214(3), 703-10

CODEN: EJBCAI; ISSN: 0014-2956

AU Holst, Otto; Broer, Wim; Thomas-Oates, Jane E.; Mamat, Uwe; Brade, Helmut

AN 1993:535154 HCAPLUS

DN 119:135154

L49 ANSWER 108 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN DUPLICATE 40

TI CONTROL OF THE EXPRESSION OF BACTERIAL GENES INVOLVED IN SYMBIOTIC  
NITROGEN-FIXATION

SO WORLD JOURNAL OF MICROBIOLOGY & BIOTECHNOLOGY, (JUL 1993) Vol. 9, No. 4,

pp. 444-454.

ISSN: 0959-3993.

AU MEGIAS M (Reprint); FOLCH J L; SOUSA C  
AN 1993:433801 SCISEARCH

L49 ANSWER 109 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN DUPLICATE 41

TI RHIZOBIAL LIPO-OLIGOSACCHARIDE SIGNALS AND THEIR ROLE IN PLANT  
MORPHOGENESIS - ARE ANALOGOUS LIPOPHILIC CHITIN DERIVATIVES PRODUCED BY  
THE PLANT

SO AUSTRALIAN JOURNAL OF PLANT PHYSIOLOGY, (1993) Vol. 20, No. 4-5, pp.  
381-392.  
ISSN: 0310-7841.

AU SPAINK H P (Reprint); WIJFJES A H M; VANVLIET T B; KIJNE J W; LUGTENBERG B.  
J J

AN 1993:639788 SCISEARCH

L49 ANSWER 110 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Effects of biosynthetic polysaccharides and oligosaccharides on intestinal  
bacteria

SO Shipin Kexue (Taipei) (1993), 20(2), 187-97  
CODEN: SPKHE6; ISSN: 0253-8997

AU Yang, Yaching; Tsiang, Fonglin; Chiu, Chihwei P.; Tsai, Chingmin E.

AN 1995:281446 HCAPLUS

DN 122:51001

L49 ANSWER 111 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

TI Noncellulolytic fungal beta-glucanases: their physiology and regulation;  
beta-glucanase occurrence, biosynthesis, mechanism of action,  
function, purification, characterization and potential applications; a  
review

SO Enzyme Microb.Technol.; (1993) 15, 3, 178-92  
CODEN: EMTED2

AU Pitson S M; Seviour R J; McDougall B M

AN 1993-04086 BIOTECHDS

L49 ANSWER 112 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

TI Development of enzymes for chemoenzymatic synthesis;  
oligosaccharide and peptide preparation; characterization of  
enzyme-catalyzed reactions, enzyme gene cloning and enzyme  
engineering; a review (conference paper)

SO Chimia; (1993) 47, 4, 127-32  
CODEN: CHIMAD

AU Wong C H

AN 1993-14752 BIOTECHDS

L49 ANSWER 113 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Determination of the structures of three bacterial polysaccharides and  
synthesis and use of new spacers for glycoconjugate formation

SO Chemical Communications (Stockholm University) (1993), (3), 32 pp.  
CODEN: CCUSBN; ISSN: 0366-5607

AU Anderson, Mats

AN 1993:581091 HCAPLUS

DN 119:181091

L49 ANSWER 114 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Development of functional food-materials utilizing enzymes and  
microorganisms. Development of technology producing  
oligosaccharides

SO Kenkyu Hokoku - Fukuoka-ken Kogyo Gijutsu Senta (1993), Volume Date 1992,  
3, 7-12

CODEN: KFKSEH; ISSN: 0916-8230

AU Furuta, Masanori; Nomiyama, Syuji; Ohta, Shumei

AN 1995:110922 HCAPLUS

DN 122:54564

L49 ANSWER 115 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Galacto-oligosaccharide and gluconic acid preparation;  
 from lactose using glucose-oxidase from *Sterigmatomyces elviae*,  
*Sirobasidium mugnum*, *Rhodotorula minuta*, etc.  
 AN 1992-10996 BIOTECHDS  
 PI JP 04144691 19 May 1992

L49 ANSWER 116 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Increased utilization of fed substrates during microbial product  
 biosynthesis  
 SO Ger. (East), 9 pp.  
 CODEN: GEXXA8  
 IN Christner, Arnulf; Helmke, Claus; Mellinger, Uwe; Heinig, Klaus  
 AN 1992:233908 HCAPLUS  
 DN 116:233908

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 298282	A5	19920213	DD 1988-323961	19881227

L49 ANSWER 117 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
 TI Preparation of inulinase for preparation of inulo-oligosaccharide - by  
 culturing  
 inulinase producing microbe in culture medium producing enzyme having high  
 end type activity  
 PI JP 04190789 A 19920709 (199234)\* JA 4[0]  
 IN FUKUOKA A; SATO K; TAKAHASHI S; TAMAYA H; WATANABE M; YOSHIMI F

L49 ANSWER 118 OF 204 MEDLINE on STN DUPLICATE 43  
 TI Isolation and characterization of *Escherichia coli* mutants  
 blocked in production of membrane-derived  
 oligosaccharides.  
 SO Journal of bacteriology, (1992 Jul) Vol. 174, No. 14, pp. 4856-9.  
 Journal code: 2985120R. ISSN: 0021-9193.  
 AU Weissborn A C; Rumley M K; Kennedy E P  
 AN 92325085 MEDLINE

L49 ANSWER 119 OF 204 BIOTECHNO COPYRIGHT 2008 Elsevier Science B.V. on STN  
 TI Mucin degradation in the human colon: Production of sialidase, sialate O-  
 acetyltransferase, N-acetylneuraminidase lyase, arylesterase, and  
 glycosulfatase activities by strains of fecal bacteria  
 SO Infection and Immunity, (1992), 60/10 (3971-3978)  
 CODEN: INFIBR ISSN: 0019-9567  
 AU Corfield A.P.; Wagner S.A.; Clamp J.R.; Kriaris M.S.; Hoskins L.C.  
 AN 1992:22297461 BIOTECHNO

L49 ANSWER 120 OF 204 MEDLINE on STN DUPLICATE 44  
 TI Rhizobial lipo-oligosaccharides: answers and questions.  
 SO Plant molecular biology, (1992 Dec) Vol. 20, No. 5, pp. 977-86. Ref: 51  
 Journal code: 9106343. ISSN: 0167-4412.  
 AU Spaink H P  
 AN 93099248 MEDLINE

L49 ANSWER 121 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Synthesis of oligosaccharides related to plant,  
 vertebrate, and bacterial cell-wall glycans  
 SO Carbohydrates (1992), 188-227. Editor(s): Ogura, Haruo; Hasegawa, Akira;  
 Suami, Tetsuo. Publisher: Kodansha, Tokyo, Japan.  
 CODEN: 60URAP  
 AU Pozsgay, Vince  
 AN 1995:336830 HCAPLUS  
 DN 122:161053

L49 ANSWER 122 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Oligosaccharides production from natural



polysaccharides by microbial depolymerizing enzymes  
SO Kagaku to Seibutsu (1992), 30(3), 170-5  
CODEN: KASEAA; ISSN: 0453-073X  
AU Tomita, Fusao; Yokota, Atsushi  
AN 1992:233785 HCAPLUS  
DN 116:233785

L49 ANSWER 123 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Development of functional food materials utilizing enzymes and  
microorganisms. Characteristics of the enzyme for  
production of oligosaccharides  
SO Kenkyu Hokoku - Fukuoka-ken Kogyo Gijutsu Senta (1992), Volume Date 1991,  
2, 95-100  
CODEN: KFKSEH; ISSN: 0916-8230  
AU Furuta, Masanori; Takada, Yasuyoshi; Suenaga, Hikaru; Ohta, Shumei  
AN 1993:624730 HCAPLUS  
DN 119:224730

L49 ANSWER 124 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Cloning of Bacillus licheniformis amylase gene and its application to  
synthesis of branched oligosaccharides;  
oligosaccharide preparation and starch liquefaction using  
panose-forming amylase and recombinant thermostable alpha-amylase  
expressed in Escherichia coli (conference paper)  
SO Biochem.Eng.2001; (1992) 80-83  
AU Park K H; Kim I C; Kim J R; Seo B C; Choi Y D; Lee D S  
AN 1993-04106 BIOTECHDS

L49 ANSWER 125 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Isolation and characterization of alkalophilic bacteria that degrade  
soybean galactan;  
galacto-oligosaccharide production using galactanase-producing  
Bacillus spp. isolated from soil  
SO Agric.Biol.Chem.; (1991) 55, 5, 1399-400  
CODEN: ABCHA6  
AU Tsumura K; Hashimoto Y; Akiba T; Horikoshi K  
AN 1991-09587 BIOTECHDS

L49 ANSWER 126 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN DUPLICATE 45  
TI STUDIES ON ENZYMATIC PRODUCTION OF OLIGOSACCHARIDES  
.6. MALTOTRIOSE-PRODUCING AMYLASE FROM MICROBACTERIUM  
-IMPERIALE  
SO AGRICULTURAL AND BIOLOGICAL CHEMISTRY, (MAR 1991) Vol. 55, No. 3, pp.  
687-692.  
ISSN: 0002-1369.  
AU TAKASAKI Y (Reprint); KITAJIMA M; TSURUTA T; NONOGUCHI M; HAYASHI S; IMADA  
K  
AN 1991:218402 SCISEARCH

L49 ANSWER 127 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN DUPLICATE 46  
TI EFFECT OF LIPOPOLYSACCHARIDE CORE SYNTHESIS MUTATIONS ON THE PRODUCTION OF  
VIBRIO-CHOLERAEE O-ANTIGEN IN ESCHERICHIA-COLI K-12  
SO FEMS MICROBIOLOGY LETTERS, (15 AUG 1991) Vol. 82, No. 3, pp. 279-286.  
ISSN: 0378-1097.  
AU MORONA R (Reprint); BROWN M H; YEADON J; HEUZENROEDER M W; MANNING P A  
AN 1991:520863 SCISEARCH

L49 ANSWER 128 OF 204 MEDLINE on STN  
TI Effect of lipopolysaccharide core synthesis mutations on the production of  
Vibrio cholerae O-antigen in Escherichia coli K-12.  
SO FEMS microbiology letters, (1991 Aug 15) Vol. 66, No. 3, pp. 279-85.  
Journal code: 7705721. ISSN: 0378-1097.  
AU Morona R; Brown M H; Yeadon J; Heuzenroeder M W; Manning P A

AN 92120466 MEDLINE

L49 ANSWER 129 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Synthesis of fructan and oligosaccharides by  
microbial fructosyltransferases

SO Denpun Kagaku (1991), 38(2), 217-22

CODEN: DPNKAV; ISSN: 0021-5406

AU Iizuka, Masaru; Tanaka, Toshio; Yamamoto, Satoru; Yoneda, Yukio; Itokawa,  
Shigekazu; Hiyama, Masato; Ito, Kazuo; Furuichi, Kimiaki; Minamiura,  
Noshi; Yamamoto, Takehiko

AN 1991:678091 HCAPLUS

DN 115:278091

L49 ANSWER 130 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

TI Degradation and utilization of xylan by a genetically modified  
Bacteroides thetaiotaomicron and in combination with selected ruminal  
bacteria;

Bacteroides ruminicola recombinant endo-1,4-beta-D-xylanase  
production; hemicellulose, xylan hydrolysis, xylo-  
oligosaccharide end-product utilization by rumen  
bacterium (conference abstract)

SO Abstr.Gen.Meet.Am.Soc.Microbiol.; (1991) 91 Meet., 202

AU Cotta M A; Whitehead T R

AN 1991-11885 BIOTECHDS

L49 ANSWER 131 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

TI Apparatus for producing immobilized cell;  
cell immobilization apparatus for cell mixing with support and  
pressurized injection through needle for bead formation; potential  
application fructo-oligosaccharide production

AN 1991-15095 BIOTECHDS

PI KR 9005528 31 Jul 1990

L49 ANSWER 132 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN

TI Galacto-oligosaccharide production - by allowing microbe of Rhodotorula,  
sterigmatomyces or sirobasidium to act on lactose to generate  
galacto-oligo-saccharide and extracting it

PI JP 02072890 A 19900313 (199016)\* JA

JP 2600874 B2 19970416 (199720) JA 3[0]

IN ONISHI I; YOKOZEKI K

L49 ANSWER 133 OF 204 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on  
STN

TI SYNTHESIS OF OLIGOSACCHARIDES RELATED TO  
BACTERIAL O-ANTIGENS.

SO Top. Curr. Chem., (1990) pp. 1-38. THIEM, J. (ED.). TOPICS IN CURRENT  
CHEMISTRY, VOL. 154. CARBOHYDRATE CHEMISTRY. VII+334P. SPRINGER-VERLAG:  
BERLIN, WEST GERMANY; NEW YORK, NEW YORK, USA. ILLUS.

Publisher: Series: Topics in Current Chemistry.

CODEN: TPCCAQ. ISSN: 0340-1022. ISBN: 3-540-51576-3, 0-387-51576-3.

AU BUNDLE D R [Reprint author]

AN 1990:401311 BIOSIS

L49 ANSWER 134 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Cloning and expression in Escherichia coli of a Haemophilus influenzae  
type b lipooligosaccharide synthesis gene(s) that encodes a  
2-keto-3-deoxyoctulosonic acid epitope

SO Infection and Immunity (1990), 58(6), 1558-64

CODEN: INFIBR; ISSN: 0019-9567

AU Spinola, Stanley M.; Kwaik, Yousef Abu; Lesse, Alan J.; Campagnari,  
Anthony A.; Apicella, Michael A.

AN 1990:527265 HCAPLUS

DN 113:127265

L49 ANSWER 135 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Synthesis of oligosaccharides by use of  
microbial enzymes  
SO Denpun Kagaku (1990), 37(2), 59-67  
CODEN: DPNKAV; ISSN: 0021-5406  
AU Kitahata, Sumio  
AN 1990:570336 HCAPLUS  
DN 113:170336

L49 ANSWER 136 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Biotechnological and chemical routes to intermediate synthesis products  
from sucrose  
SO Zuckerindustrie (Berlin, Germany) (1990), 115(1), 20-4  
CODEN: ZUCKDI; ISSN: 0344-8657  
AU Buchholz, Klaus; Kunz, Markwart  
AN 1990:404553 HCAPLUS  
DN 113:4553

L49 ANSWER 137 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN DUPLICATE 47  
TI SYNTHESIS OF OLIGOSACCHARIDES RELATED TO  
BACTERIAL O-ANTIGENS  
SO TOPICS IN CURRENT CHEMISTRY, (1990) Vol. 154, pp. 1-37.  
ISSN: 0342-6793.  
AU BUNDLE D R (Reprint)  
AN 1990:480250 SCISEARCH

L49 ANSWER 138 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 48  
TI Plant culture with growth accelerators prepared from polysaccharides of  
microbial cultures  
SO Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF  
IN Adachi, Takashi; Ishii, Takafumi; Hidaka, Hidemasa  
AN 1990:72298 HCAPLUS  
DN 112:72298

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01079101	A	19890324	JP 1987-234755	19870921
JP 07106966	B	19951115		

L49 ANSWER 139 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Production of oligosaccharide using dextransucrase  
producer bacteria e.g. Streptococcus bovis;  
culture medium effect  
AN 1989-12709 BIOTECHDS  
PI JP 01148195 9 Jun 1989

L49 ANSWER 140 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Enzymatic production of cello:oligosaccharide - involves removing inhibition  
of prod. using ultrafiltration of culture medium containing Celluibrio  
microorganism  
PI JP 01256394 A 19891012 (198947)\* JA 4[0]  
US 4908311 A 19900313 (199016) EN  
JP 05083238 B 19931125 (199350) JA 3  
IN KAINUMA K; SASAKI T; TANIGUCHI H

L49 ANSWER 141 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Enzymic preparation of N-acetyl:chito-oligosaccharide - by culturing microbe  
of trichoderma which produces chitinase, etc.  
PI JP 01174383 A 19890710 (198933)\* JA 7[0]  
JP 07089922 B2 19951004 (199544) JA 5[0]  
IN HAGINO H; USUI Y

L49 ANSWER 142 OF 204 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on  
STN  
TI MECHANISMS INVOLVED IN WOUND HEALING D GLUCOSE POLYSACCHARIDE ACTION.

SO FASEB Journal, (1989) Vol. 3, No. 4, pp. A1251.  
Meeting Info.: 73RD ANNUAL MEETING OF THE FEDERATION OF AMERICAN SOCIETIES  
FOR EXPERIMENTAL BIOLOGY, NEW ORLEANS, LOUISIANA, USA, MARCH 19-23, 1989.  
FASEB (FED AM SOC EXP BIOL) J.  
CODEN: FAJOEC. ISSN: 0892-6638.

AU SILVETTI A N [Reprint author]  
AN 1989:324650 BIOSIS

L49 ANSWER 143 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Production of galactooligosaccharides by microbial enzymes  
SO Kagaku to Kogyo (Osaka, Japan) (1989), 63(10), 407-15  
CODEN: KKGOAG; ISSN: 0368-5918  
AU Nakano, Hirofumi  
AN 1990:34334 HCAPLUS  
DN 112:34334

L49 ANSWER 144 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Synthesis of oligosaccharides by microbial  
enzymes  
SO Kagaku to Kogyo (Osaka, Japan) (1989), 63(4), 161-9  
CODEN: KKGOAG; ISSN: 0368-5918  
AU Kitahata, Sumio  
AN 1989:493061 HCAPLUS  
DN 111:93061

L49 ANSWER 145 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN  
TI MICROBIAL ENZYMES THAT PRODUCE SPECIFIC  
OLIGOSACCHARIDES  
SO ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, (10 SEP 1989) Vol.  
198, pp. 42-CARB.  
ISSN: 0065-7727.  
AU PRIEST F G  
AN 1990:347649 SCISEARCH

L49 ANSWER 146 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Application of soybean oligosaccharides  
SO New Food Industry (1989), 31(6), 33-8  
CODEN: NYFIAM; ISSN: 0547-0277  
AU Kawaguchi, Hiroshi  
AN 1989:532648 HCAPLUS  
DN 111:132648

L49 ANSWER 147 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Microbial enzymes that produce specific  
oligosaccharides;  
oligosaccharide preparation by starch saccharification (conference  
abstract)  
SO Abstr.Pap.Am.Chem.Soc.; (1989) 198 Meet., CARB42  
CODEN: ACSRAL  
AU Priest F G  
AN 1990-00411 BIOTECHDS

L49 ANSWER 148 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Malto-oligosaccharide-forming amylase production - by culturing Bacillus  
bacteria producing amylase and recovering malto-  
oligosaccharide  
PI JP 63237786 A 19881004 (198845)\* JA 9[5]  
JP 2559400 B2 19961204 (199702) JA 7[0]  
IN ISHII Y; KIMURA K; TSUJIOKA K

L49 ANSWER 149 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Lactic acid bacteria breeding accelerator - contains chitosan  
oligosaccharide, and is useful for production of dairy products  
PI JP 63098379 A 19880428 (198823)\* JA 9[8]

JP 04063674 B 19921012 (199245) JA 9  
 IN IZUME M; TAIHO A; UCHIDA Y

L49 ANSWER 150 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
 TI Gene relating to malto-oligo saccharide - and corresp. recombinant  
 plasmid and recombinant microorganism  
 PI JP 63049082 A 19880301 (198814)\* JA 13[8]  
 JP 07014346 B2 19950222 (199512) JA 14  
 IN ISHII Y; KIMURA K; SUZUKI S; TSUKAMOTO A; YAMANE K

L49 ANSWER 151 OF 204 MEDLINE on STN DUPLICATE 50  
 TI Degradation of human intestinal glycosphingolipids by extracellular  
 glycosidases from mucin-degrading bacteria of the human fecal flora.  
 SO The Journal of biological chemistry, (1988 Aug 5) Vol. 263, No. 22, pp.  
 10790-8.  
 Journal code: 2985121R. ISSN: 0021-9258.  
 AU Larson G; Falk P; Hoskins L C  
 AN 88273201 MEDLINE

L49 ANSWER 152 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Selection of microorganisms which produce raw-starch degrading enzymes;  
 isolation of Bacillus, Aspergillus and Hansenula spp. producing  
 alpha-amylase and/or glucoamylase  
 SO Appl.Microbiol.Biotechnol.; (1988) 27, 5-6, 443-46  
 CODEN: EJABDD  
 AU Bergmann F W; Abe J; Hizukuri S  
 AN 1988-07243 BIOTECHDS

L49 ANSWER 153 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI Transglycosylase and hydrolase activities of carbohydrases;  
 e.g. lysozyme, alpha-amylase, dextranase and glucoamylase; a review  
 SO Prikl.Biokhim.Mikrobiol.; (1988) 24, 3, 291-304  
 CODEN: PBMIK  
 AU Maksimov V I  
 AN 1988-08210 BIOTECHDS

L49 ANSWER 154 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Synthesis of functional oligosaccharides by  
 microbial enzymes  
 SO Gekkan Fudo Kemikaru (1988), 4(6), 70-4  
 CODEN: GFKEEX; ISSN: 0911-2286  
 AU Kitahata, Sumio  
 AN 1988:547881 HCAPLUS  
 DN 109:147881

L49 ANSWER 155 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
 on STN DUPLICATE 52  
 TI SPECTROSCOPIC ANALYSIS OF THE OLIGOSACCHARIDES PRODUCED  
 BY BACTERIOPHAGE-BORNE ENZYME ACTION ON KLEBSIELLA-K36  
 POLYSACCHARIDE  
 SO SOUTH AFRICAN JOURNAL OF CHEMISTRY, (JUN 1988) Vol. 41, No. 2, pp. 42-47.  
 ISSN: 0379-4350.  
 AU RAVENSCROFT N (Reprint); JACKSON G E; JOAO H; STEPHEN A M  
 AN 1988:403205 SCISEARCH

L49 ANSWER 156 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 TI The identification of lipopolysaccharide producing microorganisms;  
 hybridoma construction for monoclonal antibody secretion, application  
 for Gram-negative bacterium detection  
 AN 1987-11961 BIOTECHDS  
 PI US 4683196 28 Jul 1987

L49 ANSWER 157 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
 TI Foliar liquid fertilizers from wastewaters  
 SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

AN 1990:6719 HCAPLUS  
DN 112:6719

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62283906	A	19871209	JP 1986-124865	19860530

L49 ANSWER 158 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Manufacture of chondroitinsulfuric acid hydrolysates by immobilized bacteria  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF

IN Kimura, Hikari; Murata, Kosaku; Nonaka, Michio; Sato, Nobuyuki  
AN 1987:552866 HCAPLUS  
DN 107:152866

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62130696	A	19870612	JP 1985-270745	19851203
	JP 05058716	B	19930827		

L49 ANSWER 159 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Malto:pentose preparation - by acid hydrolysis of cyclodextrin then treatment with amylase derived from Bacillus spp.

PI JP 62208294 A 19870912 (198742)\* JA 4[0]  
IN YAZAKI A

L49 ANSWER 160 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI The synthesis of the heptose region of the gram-negative bacterial core oligosaccharides  
SO Tetrahedron Letters (1987), 28(14), 1569-72  
CODEN: TELEAY; ISSN: 0040-4039

AU Dziewiszek, Krzysztof; Banaszek, Anna; Zamojski, Aleksander  
AN 1987:637165 HCAPLUS  
DN 107:237165

L49 ANSWER 161 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN  
DUPLICATE 53

TI METHYLATION ANALYSIS OF THE OLIGOSACCHARIDES PRODUCED BY BACTERIOPHAGE-BORNE ENZYME ACTION ON KLEBSIELLA K-36 POLYSACCHARIDE

SO SOUTH AFRICAN JOURNAL OF SCIENCE, (SEP 1987) Vol. 83, No. 9, pp. 560-560. ISSN: 0038-2353.

AU DUTTON G G S (Reprint); MACKIE K L; MERRIFIELD E H; RAVENSCROFT N; STEPHEN A M

AN 1987:635651 SCISEARCH

L49 ANSWER 162 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Commercial polysaccharides: recent trends and developments; polysaccharide production; a review (conference paper)

SO Prog.Biotechnol.; (1987) 3, 311-35

AU Yalpani M; Sandford P A

AN 1989-00990 BIOTECHDS

L49 ANSWER 163 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI A novel lyase acting on gellan gum; produced by Pseudomonas elodea, enzyme characterization (conference abstract)

SO Eur.Congr.Biotechnol.; (1987) Vol.2, 176

AU Schmedding D J M; van den Dool R T M; Kerkenaar A

AN 1989-07786 BIOTECHDS

L49 ANSWER 164 OF 204 LIFESCI COPYRIGHT 2008 CSA on STN DUPLICATE 54  
TI The identification of oral microbial lectins by cell affinity chromatography.

SO FEMS MICROBIOL. LETT., (1987) vol. 40, no. 1, pp. 123-127.

AU Murray, P.A.; Materese, V.; Hoover, C.I.; Winkler, J.R.  
AN 87:69325 LIFESCI

L49 ANSWER 165 OF 204 MEDLINE on STN DUPLICATE 55  
TI Genetic and biochemical analysis of Shigella dysenteriae 1 O antigen polysaccharide biosynthesis in Escherichia coli K-12: 9 kb plasmid of S. dysenteriae 1 determines addition of a galactose residue to the lipopolysaccharide core.  
SO Microbial pathogenesis, (1986 Jun) Vol. 1, No. 3, pp. 299-306.  
Journal code: 8606191. ISSN: 0882-4010.  
AU Sturm S; Jann B; Jann K; Fortnagel P; Timmis K N  
AN 89237814 MEDLINE

L49 ANSWER 166 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI A method for producing fructo-oligosaccharide by immobilized microorganism; sucrose conversion to inulin-type compounds using immobilized Aureobasidium sp.  
AN 1985-06600 BIOTECHDS  
PI JP 60041497 5 Mar 1985

L49 ANSWER 167 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Fructo-oligosaccharide production - by fermentation with an Aureobasidium microorganism  
PI JP 60027395 A 19850212 (198512)\* JA 11[9]  
JP 05004071 B 19930119 (199306) JA 13  
IN SHINOHARA S; UENO H

L49 ANSWER 168 OF 204 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 57  
TI FORMATION OF OLIGOSACCHARIDES DURING HYDROLYSIS OF LACTOSE IN MILK USING BETA GALACTOSIDASE FROM BACILLUS-CIRCULANS.  
SO Journal of Food Science, (1985) Vol. 50, No. 6, pp. 1602-1606.  
CODEN: JFDSA. ISSN: 0022-1147.  
AU MOZAFFAR Z [Reprint author]; NAKANISHI K; MATSUNO R  
AN 1986:131857 BIOSIS

L49 ANSWER 169 OF 204 MEDLINE on STN DUPLICATE 58  
TI Mutant of Escherichia coli deficient in osmoregulation of periplasmic oligosaccharide synthesis.  
SO Journal of bacteriology, (1985 Mar) Vol. 161, No. 3, pp. 1049-53.  
Journal code: 2985120R. ISSN: 0021-9193.  
AU Clark D P  
AN 85130782 MEDLINE

L49 ANSWER 170 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Novel oligosaccharides obtained by bacteriophage degradation of the polysaccharide from Klebsiella serotype K26  
SO Carbohydrate Research (1985), 144(2), 251-62  
CODEN: CRBRAT; ISSN: 0008-6215  
AU Di Fabio, Jose L.; Karunaratne, D. Nedra; Dutton, Guy G. S.  
AN 1986:497844 HCAPLUS  
DN 105:97844

L49 ANSWER 171 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
TI Gelling agent of non-branched polygalactan and metallic oxides; especially aluminum silicon and titanium oxides is used to replace agar in microorganism culture medium  
AN 1984-11500 BIOTECHDS  
PI EP 118376 12 Sep 1984

L49 ANSWER 172 OF 204 MEDLINE on STN DUPLICATE 59  
TI Regulation of the synthesis of membrane-derived oligosaccharides in Escherichia coli. Assay of phosphoglycerol transferase I in vivo.

SO The Journal of biological chemistry, (1984 Jul 10) Vol. 259, No. 13, pp. 8388-93.  
Journal code: 2985121R. ISSN: 0021-9258.

AU Bohin J P; Kennedy E P  
AN 84239819 MEDLINE

L49 ANSWER 173 OF 204 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation  
on STN DUPLICATE 60

TI SYNTHESIS OF MORAPRENYL PYROPHOSPHATE OLIGOSACCHARIDES  
- POSSIBLE BIOSYNTHETIC PRECURSORS OF ESCHERICHIA-COLI 08 AND 09  
O-ANTIGENS

SO BIOORGANICHESKAYA KHIMIYA, (1984) Vol. 10, No. 7, pp. 946-953.  
ISSN: 0132-3423.

AU TORGOV V I (Reprint); SHIBAEV V N; KOCHETKOV N K  
AN 1984:520303 SCISEARCH

L49 ANSWER 174 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Synthesis of repeating units of Escherichia coli capsular polysaccharides  
containing D-ribose and 3-deoxy-D-manno-2-octulosonic acid (KDO)

SO Carbohydrate Research (1984), 132(2), 261-74  
CODEN: CRBRAT; ISSN: 0008-6215

AU Kosma, Paul; Schulz, Gerhard; Unger, Frank M.  
AN 1985:62532 HCAPLUS  
DN 102:62532  
OREF 102:9825a,9828a

L49 ANSWER 175 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Mucin degradation by enteric bacteria: ecological aspects and  
implications for bacterial attachment to gut mucosa

SO Attachment Org. Gut Mucosa, [Pap. Res. Workshop] (1984), Volume 2, 51-67.  
Editor(s): Boedeker, Edgar C. Publisher: CRC, Boca Raton, Fla.  
CODEN: 52SOA7

AU Hoskins, Lansing C.  
AN 1985:594094 HCAPLUS  
DN 103:194094  
OREF 103:31237a,31240a

L49 ANSWER 176 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN

TI Oligosaccharide preparation - by treating starch, amylase or amylopectin  
(hydrolysate) with amylase obtd. from Bacillus e.g. circulans G 4,5 FERM  
p-6237

PI JP 58170492 A 19831007 (198346)\* JA 7[0]  
JP 59004119 B 19840127 (198408) JA

IN TAKASAKI Y

L49 ANSWER 177 OF 204 MEDLINE on STN DUPLICATE 61

TI Appearance of monoglyceride and triglyceride in the cell envelope of  
Escherichia coli mutants defective in diglyceride kinase.

SO The Journal of biological chemistry, (1983 Jul 10) Vol. 258, No. 13, pp. 8068-73.  
Journal code: 2985121R. ISSN: 0021-9258.

AU Rotering H; Raetz C R  
AN 83238407 MEDLINE

L49 ANSWER 178 OF 204 MEDLINE on STN DUPLICATE 62

TI Structure of the core regions in lipopolysaccharides from Escherichia coli  
K12 W2252-11U-, the Ter-15 mutant, and Ter-15 (F'-lac) and Ter-15 (F+)  
cells.

SO Biochimica et biophysica acta, (1983 Apr 20) Vol. 756, No. 3, pp. 335-40.  
Journal code: 0217513. ISSN: 0006-3002.

AU Ohkawa T  
AN 83153817 MEDLINE

L49 ANSWER 179 OF 204 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

TI Saccharides as physiologically active hypoglycemic (antidiabetic) agents;



derived from microbially-produced polysaccharides  
and oligosaccharides

AN 1982-03991 BIOTECHDS  
PI JP 57146713 10 Sep 1982

L49 ANSWER 180 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Solubilisation, modification and hydrolysis of carbohydrate(s) - by  
treatment with aqueous acid and magnesium, calcium or lithium salt

PI EP 44622 A 19820127 (198205)\* EN 51

R: AT CH DE FR GB LI SE

NO 8102358 A 19820208 (198209) NO  
BR 8104434 A 19820330 (198215) PT  
JP 57048997 A 19820320 (198217) JA  
ZA 8104472 A 19820705 (198238) EN  
EP 44622 B 19850821 (198534) EN

R: AT CH DE FR GB LI SE

CA 1192541 A 19850827 (198539)# EN  
DE 3171911 G 19850926 (198540) DE  
SU 1318171 A 19870615 (198805) RU  
US 4713118 A 19871215 (198806) EN  
US 4787939 A 19881129 (198850) EN  
JP 01033113 B 19890711 (198931) JA

IN BARKER S A; SOMERS P J

L49 ANSWER 181 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Enzyme mixtures for production of oligosaccharides

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

AN 1981:478483 HCAPLUS

DN 95:78483

OREF 95:13291a,13294a

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56051982	A	19810509	JP 1979-127979	19791005

L49 ANSWER 182 OF 204 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on  
STN DUPLICATE 63

TI COMPARATIVE STUDY OF HOST CAPSULE DEPOLYMERASES ASSOCIATED WITH KLEBSIELLA  
BACTERIO PHAGES.

SO Virology, (1981) Vol. 113, No. 1, pp. 363-378.

CODEN: VIRLAX. ISSN: 0042-6822.

AU RIEGER-HUG D [Reprint author]; STIRM S

AN 1982:154584 BIOSIS

L49 ANSWER 183 OF 204 LIFESCI COPYRIGHT 2008 CSA on STN

TI Comparative Study of Host Capsule Depolymerases Associated With Klebsiella  
Bacteriophages.

SO VIROLOGY., (1981) vol. 113, no. 1, pp. 363-378.

AU Stirm, S.; Rieger-Hug, D.

AN 81:33613 LIFESCI

L49 ANSWER 184 OF 204 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights  
reserved on STN

TI Comparative study of host capsule depolymerases associated with Klebsiella  
bacteriophages.

SO Behavioural Brain Research, (1981) Vol. 3, No. 2, pp. 363-378.

ISSN: 0166-4328 CODEN: BBREDI

AU Rieger-Hug D.; Stirm S.

AN 1981201970 EMBASE

L49 ANSWER 185 OF 204 MEDLINE on STN DUPLICATE 64

TI Synthesis of 2-methyl-[2-acetamido-4-O-acetyl-6-O-benzyl-3-O-(2-butenyl)-  
1,2-dideoxy-alpha-D -glucopyrano]-[2,1-d]-2-oxazoline, a versatile  
intermediate for the synthesis of complex  
oligosaccharides of bacterial cell-wall, human milk, and

blood-group substances.

SO Carbohydrate research, (1981 Mar 2) Vol. 89, No. 2, pp. 279-88.  
Journal code: 0043535. ISSN: 0008-6215.

AU Durette P L; Meitzner E P  
AN 81210068 MEDLINE

L49 ANSWER 186 OF 204 MEDLINE on STN DUPLICATE 65  
TI Mucin degradation in human colon ecosystems. Evidence for the existence and role of bacterial subpopulations producing glycosidases as extracellular enzymes.

SO The Journal of clinical investigation, (1981 Jan) Vol. 67, No. 1, pp. 163-72.  
Journal code: 7802877. ISSN: 0021-9738.

AU Hoskins L C; Boulding E T  
AN 81094427 MEDLINE

L49 ANSWER 187 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Galactose-containing oligosaccharide A preparation - by cultivating suitable microorganism of genus *Bacillus*

PI JP 55108887 A 19800821 (198040)\* JA  
JP 56047190 B 19811107 (198149) JA  
IN KATO T; SAWAZAKI T

L49 ANSWER 188 OF 204 WPIDS COPYRIGHT 2008 THE THOMSON CORP on STN  
TI Bifido:bacterium multiplication-promoting agent - containing oligosaccharide prepared by treating lactose with beta-glucosidase produced by *Aspergillus oryzae*

PI JP 55104885 A 19800811 (198039)\* JA  
GB 2080330 A 19820203 (198205)# EN  
DE 3027731 A 19820204 (198206)# DE  
FR 2488137 A 19820212 (198211)# FR  
NL 8004210 A 19820216 (198211)# NL  
BR 8004937 A 19820406 (198216)# PT  
DE 3027731 C 19820722 (198230)# DE  
JP 58020266 B 19830422 (198320) JA  
US 4435389 A 19840306 (198412)# EN  
CA 1165706 A 19840417 (198420)# EN  
GB 2080330 B 19841003 (198440)# EN  
JP 35041449 B 19850305 (198515) JA  
CH 649002 A 19850430 (198521)# DE  
KR 8600065 A 19860206 (198640) KO  
NL 181115 B 19870116 (198706)# NL  
JP 63018457 B 19880419 (198819) JA  
IT 1141607 B 19861001 (198826) IT

IN KAMIYAMA S; KURODA A; MATSUMOTO K; MUTAI M; TAKAHASHI T; TANAKA R; TERAJIMA T; TERASHIMA T; UYAMA S

L49 ANSWER 189 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Synthesis of  $\alpha$ -L-Rhap-(1  $\rightarrow$  3)-L-Rha and  $\alpha$ -L-Rhap-(1  $\rightarrow$  3)- $\alpha$ -L-Rhap-(1  $\rightarrow$  3)-L-Rha building stones of bacterial polysaccharides

SO Symp. Pap. - IUPAC Int. Symp. Chem. Nat. Prod., 11th (1978), Volume 3, 73-6  
CODEN: 41RTAX

AU Pozsgay, Vince; Nanasi, Pal  
AN 1980:42276 HCAPLUS  
DN 92:42276  
OREF 92:7065a,7068a

L49 ANSWER 190 OF 204 MEDLINE on STN DUPLICATE 66  
TI Relation of turnover of membrane phospholipids to synthesis of membrane-derived oligosaccharides of *Escherichia coli*.

SO The Journal of biological chemistry, (1977 Jun 25) Vol. 252, No. 12, pp. 4250-5.  
Journal code: 2985121R. ISSN: 0021-9258.

AU Schulman H; Kennedy E P  
AN 77187939 MEDLINE

L49 ANSWER 191 OF 204 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI ANTIGEN DEGRADATION IN HUMAN COLON ECOSYSTEMS HOSTS ABO BLOOD TYPE  
INFLUENCES ENTERIC BACTERIAL DEGRADATION OF A CELL SURFACE ANTIGEN ON  
ESCHERICHIA-COLI O-86.

SO Gastroenterology, (1977) Vol. 73, No. 1, pp. 37-41.

CODEN: GASTAB; ISSN: 0016-5085.

AU CROMWELL C L [Reprint author]; HOSKINS L C

AN 1978:140610 BIOSIS

L49 ANSWER 192 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Oligosaccharides

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

IN Okada, Shigetaka; Tsuyama, Naoto; Mitsuhashi, Masakazu; Ogasawara, Junsuke

AN 1974:131677 HCAPLUS

DN 80:131677

OREF 80:21245a,21248a

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 48098093	A	19731213	JP 1972-31619	19720331
JP 56004238	B	19810129		

L49 ANSWER 193 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Interference with bacterial cell wall synthesis by  
oligosaccharide antibiotics

SO Bollettino - Societa Italiana di Biologia Sperimentale (1970), 46(5),  
233-7

CODEN: BSIBAC; ISSN: 0037-8771

AU Bertazzoni, E.; Berti, Tito

AN 1970:506481 HCAPLUS

DN 73:106481

OREF 73:17327a,17332a

L49 ANSWER 194 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI In vitro synthesis of oligosaccharides by three "fruit rot" fungi

SO Proceedings - Indian Academy of Sciences, Section B (1970), 71(4), 171-6

CODEN: PISBAA; ISSN: 0370-0097

AU Kapoor, I. J.; Tandon, Ram N.

AN 1970:484877 HCAPLUS

DN 73:84877

OREF 73:13859a,13862a

L49 ANSWER 195 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Decomposition products of enzymic starch hydrolysis

SO Proceedings of the Annual Congress - South African Sugar Technologists'  
Association (1970), 44, 94-7

CODEN: PSATAA; ISSN: 0373-045X

AU Bruijn, J.

AN 1971:553165 HCAPLUS

DN 75:153165

OREF 75:24153a,24156a

L49 ANSWER 196 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Synthesis of oligosaccharides by growing culture of Leuconostoc  
mesenteroides. IV. Oligosaccharide formation in the presence of various  
types of glucobioses as acceptors

SO Agricultural and Biological Chemistry (1969), 33(9), 1295-300

CODEN: ABCHA6; ISSN: 0002-1369

AU Yamauchi, Fumio; Ohwada, Yhuji

AN 1969:488712 HCAPLUS

DN 71:88712

OREF 71:16479a,16482a

L49 ANSWER 197 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Quantitative chromatography of homologous glucose oligomers and other  
saccharides using polyacrylamide gel  
SO Journal of Chromatography (1969), 42(4), 476-84  
CODEN: JOCRAM; ISSN: 0021-9673  
AU John, Michael; Trenel, Goetz; Dellweg, Hanswerner  
AN 1969:488266 HCAPLUS  
DN 71:88266  
OREF 71:16409a,16412a

L49 ANSWER 198 OF 204 MEDLINE on STN DUPLICATE 67  
TI Novel heparin degradation products. Isolation and characterization of  
novel disaccharides and oligosaccharides produced from  
heparin by bacterial degradation.  
SO The Biochemical journal, (1968 Jul) Vol. 108, No. 4, pp. 647-54.  
Journal code: 2984726R. ISSN: 0264-6021.  
AU Dietrich C P  
AN 68361894 MEDLINE

L49 ANSWER 199 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Fundamental processes in the synthesis of oligo- and polysaccharides by  
microorganisms. I. Synthesis of oligosaccharides  
. II. Synthesis of polysaccharides  
SO Mikrobiol. Zh., Akad. Nauk Ukr. RSR (1961), 23(No. 4;No. 5), 58-62;65-70  
AU Novikova, S. I.  
AN 1962:68895 HCAPLUS  
DN 56:68895  
OREF 56:13329h-i

L49 ANSWER 200 OF 204 HCAPLUS COPYRIGHT 2008 ACS on STN  
TI Synthesis of oligosaccharides by microbial  
enzymes  
SO (1960) 44 pp. Avail.: Univ. Microfilms (Ann Arbor, Mich.), Order No.  
60-4506  
From: Dissertation Abstr. 21, 1333  
AU Marsh, Jean M.  
AN 1961:28400 HCAPLUS  
DN 55:28400  
OREF 55:5643d-e

L49 ANSWER 201 OF 204 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on  
STN  
TI The synthesis of oligosaccharides by microbial  
enzymes.  
SO DISSERTATION ABSTS, (1960) Vol. 21, No. 6, pp. 1333.  
AU MARSH, JEAN MARIE  
AN 1961:27665 BIOSIS

L49 ANSWER 202 OF 204 MEDLINE on STN DUPLICATE 68  
TI Carbohydrate metabolism of coli group bacteria. IV.  
Oligosaccharide synthesis from sucrose by Esch.  
coli var. communior.  
SO Japanese journal of medical science & biology, (1954 Feb) Vol. 7, No. 1,  
pp. 1-13.  
Journal code: 0243706. ISSN: 0021-5112.  
AU MOROOKA N  
AN 55022750 MEDLINE

L49 ANSWER 203 OF 204 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on  
STN DUPLICATE 69  
TI The oligosaccharides synthesised from maltose by  
Escherichia coli.  
SO JOUR CHEM SOC [LONDON], (1952) Vol. 1952, No. 1, pp. 209-215.

AU BARKER, S. A.; BOURNE, E. J.  
AN 1952:28355 BIOSIS

L49 ANSWER 204 OF 204 MEDLINE on STN DUPLICATE 70  
TI The oligosaccharides synthesized by Escherichia  
coli from maltose.  
SO The Biochemical journal, (1951 Sep) Vol. 49, No. 4, pp. lxi.  
Journal code: 2984726R. ISSN: 0264-6021.  
AU BARKER S A; BOURNE E J  
AN 52016452 MEDLINE

=> s lactose permease or lacy or lac(w)y

FILE 'MEDLINE'

16884 LACTOSE  
2832 PERMEASE  
620 LACTOSE PERMEASE  
(LACTOSE (W) PERMEASE)  
790 LACY  
11412 LAC  
163411 Y  
30 LAC(W)Y  
L50 891 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'SCISEARCH'

14948 LACTOSE  
3378 PERMEASE  
755 LACTOSE PERMEASE  
(LACTOSE (W) PERMEASE)  
317 LACY  
8618 LAC  
183185 Y  
8 LAC(W)Y  
L51 989 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'LIFESCI'

4626 "LACTOSE"  
1774 "PERMEASE"  
274 LACTOSE PERMEASE  
("LACTOSE" (W) "PERMEASE")  
153 LACY  
4029 LAC  
36738 Y  
17 LAC(W)Y  
L52 385 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'BIOTECHDS'

3729 LACTOSE  
247 PERMEASE  
39 LACTOSE PERMEASE  
(LACTOSE (W) PERMEASE)  
37 LACY  
1934 LAC  
6231 Y  
5 LAC(W)Y  
L53 74 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'BIOSIS'

24146 LACTOSE  
3542 PERMEASE  
526 LACTOSE PERMEASE  
(LACTOSE (W) PERMEASE)  
437 LACY  
10002 LAC  
131845 Y

```

        62 LAC(W) Y
L54      896 LACTOSE PERMEASE OR LACY OR LAC(W) Y

FILE 'EMBASE'
        14935 "LACTOSE"
        2360 "PERMEASE"
        478 LACTOSE PERMEASE
            ("LACTOSE" (W) "PERMEASE")
        306 LACY
        5327 LAC
        123114 Y
            22 LAC(W) Y
L55      701 LACTOSE PERMEASE OR LACY OR LAC(W) Y

FILE 'HCAPLUS'
        56371 LACTOSE
        3618 PERMEASE
        556 LACTOSE PERMEASE
            (LACTOSE(W) PERMEASE)
        501 LACY
        11754 LAC
        344142 Y
            22 LAC(W) Y
L56      938 LACTOSE PERMEASE OR LACY OR LAC(W) Y

FILE 'NTIS'
        219 LACTOSE
        12 PERMEASE
        1 LACTOSE PERMEASE
            (LACTOSE(W) PERMEASE)
        15 LACY
        545 LAC
        15331 Y
            0 LAC(W) Y
L57      16 LACTOSE PERMEASE OR LACY OR LAC(W) Y

FILE 'ESBIOBASE'
        4138 LACTOSE
        1490 PERMEASE
        251 LACTOSE PERMEASE
            (LACTOSE(W) PERMEASE)
        137 LACY
        2324 LAC
        44478 Y
            2 LAC(W) Y
L58      336 LACTOSE PERMEASE OR LACY OR LAC(W) Y

FILE 'BIOTECHNO'
        4333 LACTOSE
        1423 PERMEASE
        257 LACTOSE PERMEASE
            (LACTOSE(W) PERMEASE)
        105 LACY
        2921 LAC
        24405 Y
            15 LAC(W) Y
L59      317 LACTOSE PERMEASE OR LACY OR LAC(W) Y

FILE 'WPIDS'
        14778 LACTOSE
        114 PERMEASE
        5 LACTOSE PERMEASE
            (LACTOSE(W) PERMEASE)
        55 LACY
        1348 LAC

```

```

269044 Y
  3 LAC(W)Y
L60      62 LACTOSE PERMEASE OR LACY OR LAC(W)Y

TOTAL FOR ALL FILES
L61      5605 LACTOSE PERMEASE OR LACY OR LAC(W) Y

=> s l61(10a)(express? or overexpress? or recombinant?)
FILE 'MEDLINE'
  1154432 EXPRESS?
  84243 OVEREXPRESS?
  292698 RECOMBINANT?
L62      43 L50(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'SCISEARCH'
  1476371 EXPRESS?
  96165 OVEREXPRESS?
  174668 RECOMBINANT?
L63      38 L51(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'LIFESCI'
  472856 EXPRESS?
  38545 OVEREXPRESS?
  79538 RECOMBINANT?
L64      35 L52(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'BIOTECHDS'
  164518 EXPRESS?
  7208 OVEREXPRESS?
  110831 RECOMBINANT?
L65      21 L53(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'BIOSIS'
  1403420 EXPRESS?
  93099 OVEREXPRESS?
  215355 RECOMBINANT?
L66      63 L54(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'EMBASE'
  1062976 EXPRESS?
  84489 OVEREXPRESS?
  195187 RECOMBINANT?
L67      35 L55(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'HCAPLUS'
  1402395 EXPRESS?
  88725 OVEREXPRESS?
  214008 RECOMBINANT?
L68      70 L56(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'NTIS'
  41690 EXPRESS?
  1255 OVEREXPRESS?
  1920 RECOMBINANT?
L69      0 L57(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'ESBIOBASE'
  677875 EXPRESS?
  64813 OVEREXPRESS?
  98793 RECOMBINANT?
L70      28 L58(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'BIOTECHNO'
  452182 EXPRESS?
  37390 OVEREXPRESS?

```

```

127206 RECOMBINANT?
L71      31 L59(10A) (EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'WPIDS'
      154568 EXPRESS?
      4031 OVEREXPRESS?
      53306 RECOMBINANT?
L72      2 L60(10A) (EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

TOTAL FOR ALL FILES
L73      366 L61(10A) (EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

=> s l73 not 2001-2008/py
FILE 'MEDLINE'
      4221099 2001-2008/PY
              (20010000-20089999/PY)
L74      32 L62 NOT 2001-2008/PY

FILE 'SCISEARCH'
      7790095 2001-2008/PY
              (20010000-20089999/PY)
L75      23 L63 NOT 2001-2008/PY

FILE 'LIFESCI'
      895221 2001-2008/PY
L76      24 L64 NOT 2001-2008/PY

FILE 'BIOTECHDS'
      174757 2001-2008/PY
L77      14 L65 NOT 2001-2008/PY

FILE 'BIOSIS'
      3897957 2001-2008/PY
L78      45 L66 NOT 2001-2008/PY

FILE 'EMBASE'
      3713811 2001-2008/PY
L79      24 L67 NOT 2001-2008/PY

FILE 'HCAPLUS'
      8090843 2001-2008/PY
L80      49 L68 NOT 2001-2008/PY

FILE 'NTIS'
      121734 2001-2008/PY
L81      0 L69 NOT 2001-2008/PY

FILE 'ESBIOBASE'
      2196803 2001-2008/PY
L82      15 L70 NOT 2001-2008/PY

FILE 'BIOTECHNO'
      368875 2001-2008/PY
L83      25 L71 NOT 2001-2008/PY

FILE 'WPIDS'
      6465009 2001-2008/PY
L84      0 L72 NOT 2001-2008/PY

TOTAL FOR ALL FILES
L85      251 L73 NOT 2001-2008/PY

=> dup rem l85
PROCESSING COMPLETED FOR L85
L86      72 DUP REM L85 (179 DUPLICATES REMOVED)

```



```

=> s l61(5a)toxic?
FILE 'MEDLINE'
      484015 TOXIC?
L87      0 L50 (5A) TOXIC?

FILE 'SCISEARCH'
      306201 TOXIC?
L88      0 L51 (5A) TOXIC?

FILE 'LIFESCI'
      121902 TOXIC?
L89      0 L52 (5A) TOXIC?

FILE 'BIOTECHDS'
      13355 TOXIC?
L90      0 L53 (5A) TOXIC?

FILE 'BIOSIS'
      1482029 TOXIC?
L91      1 L54 (5A) TOXIC?

FILE 'EMBASE'
      567603 TOXIC?
L92      0 L55 (5A) TOXIC?

FILE 'HCAPLUS'
      556327 TOXIC?
L93      0 L56 (5A) TOXIC?

FILE 'NTIS'
      51406 TOXIC?
L94      0 L57 (5A) TOXIC?

FILE 'ESBIOBASE'
      212039 TOXIC?
L95      0 L58 (5A) TOXIC?

FILE 'BIOTECHNO'
      45087 TOXIC?
L96      0 L59 (5A) TOXIC?

FILE 'WPIDS'
      109206 TOXIC?
L97      0 L60 (5A) TOXIC?

TOTAL FOR ALL FILES
L98      1 L61 (5A) TOXIC?

```

=> log y

COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE
ENTRY
499.43

TOTAL
SESSION
499.64

STN INTERNATIONAL LOGOFF AT 15:04:19 ON 02 JAN 2008